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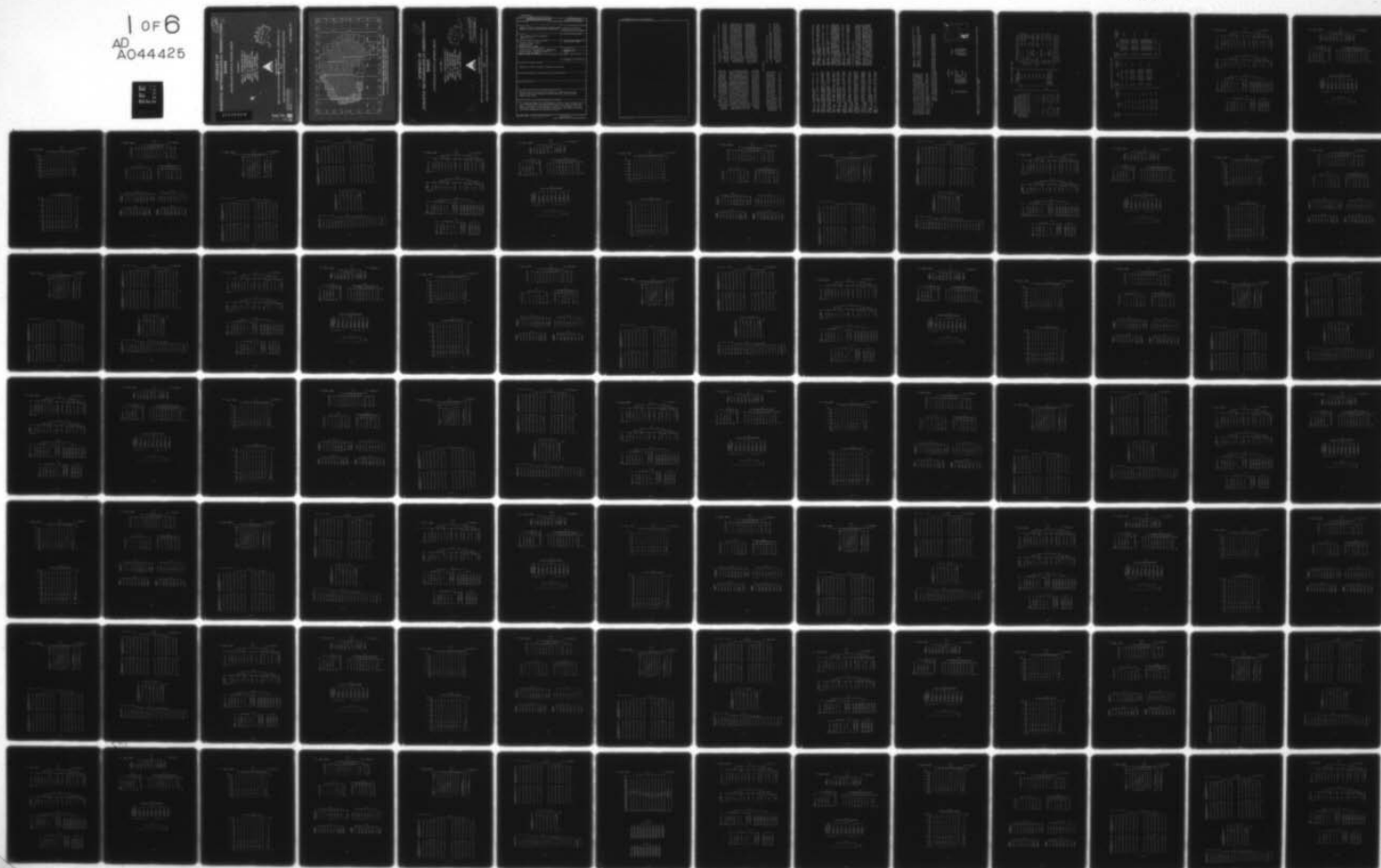
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SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO). AUSTRAL--ETC(U)  
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1 OF 6  
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12

# SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO)

## AUSTRALIAN COASTAL MARINE AREAS

### VOLUME 3

AREA 16 - ESPERANCE BAY S  
AREA 17 - CAPE LEEUWIN  
AREA 18 - PERTH NW  
AREA 19 - SHARK BAY  
AREA 20 - BARROW ISLAND  
AREA 21 - BROOME  
AREA 22 - CAPE TALBOT



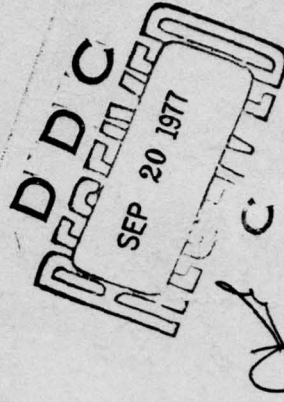
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FOR  
THE DIRECTOR, NAVAL OCEANOGRAPHY AND METEOROLOGY

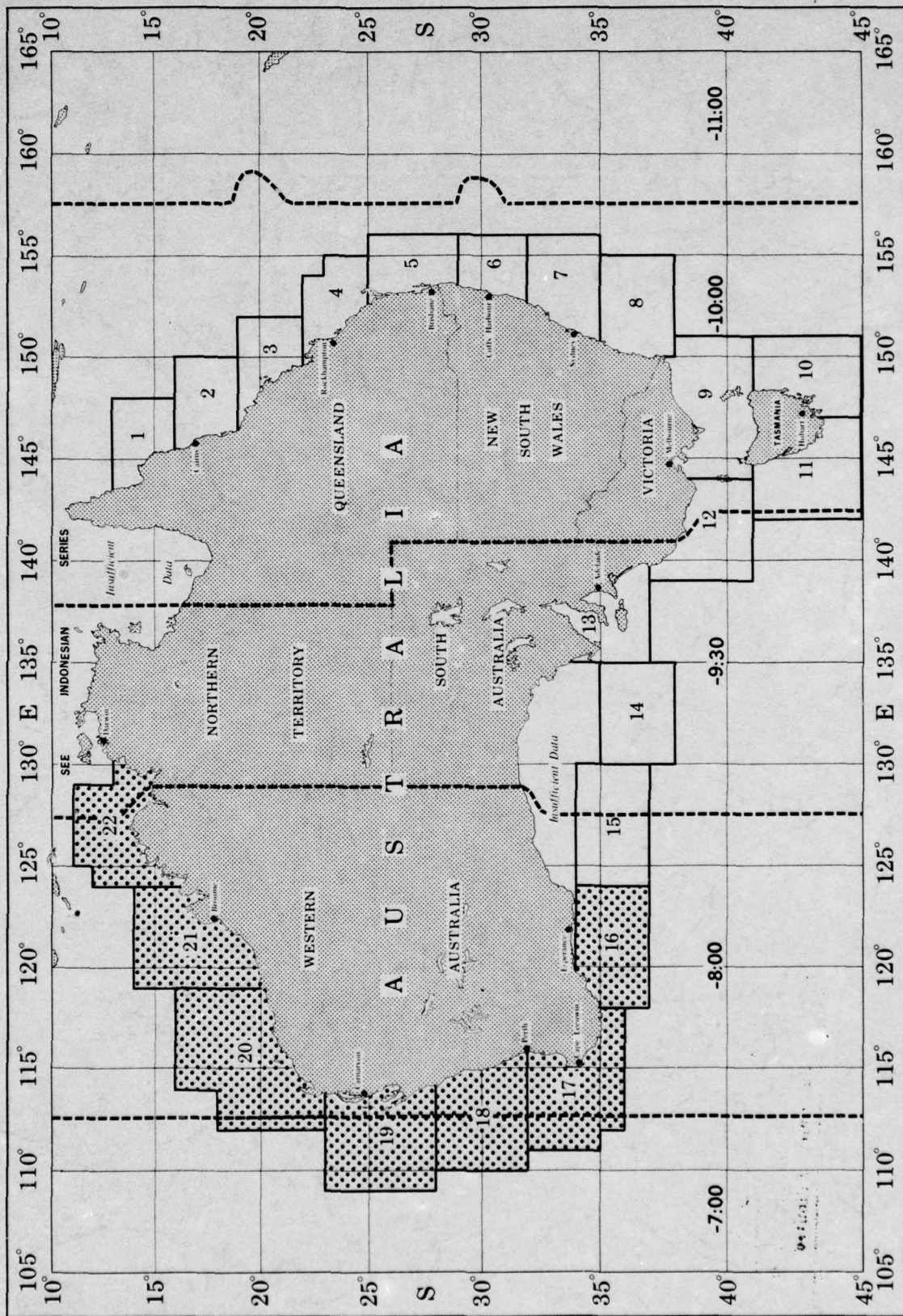
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# AUSTRALIAN COASTAL MARINE SSMO AREAS AND STANDARD TIME ZONES

Shaded areas are included in this volume

A list of the area names and their central locations appears on the inside back cover

12

SUMMARY OF  
SYNOPTIC METEOROLOGICAL OBSERVATIONS  
(SSMO)

AUSTRALIAN COASTAL MARINE AREAS

VOLUME 3.

AREA 16 - ESPERANCE BAY S.  
AREA 17 - CAPE LEEUWIN,  
AREA 18 - PERTH NW.  
AREA 19 - SHARK BAY.  
AREA 20 - BARROW ISLAND.  
AREA 21 - BROOME.  
AREA 22 - CAPE TALBOT.

9 Reference pub.



DDC  
RECEIVED  
SEP 20 1977  
C96  
10 Sep 77

12-563p.

DISTRIBUTION STATEMENT A  
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SECURITY CLASSIFICATION OF THIS PAGE (When Data Entered)

REPORT DOCUMENTATION PAGE		READ INSTRUCTIONS BEFORE COMPLETING FORM
1. REPORT NUMBER	2. GOVT ACCESSION NO.	3. RECIPIENT'S CATALOG NUMBER
4. TITLE (and Subtitle) Summary of Synoptic Meteorological Observations (SSMO) Australian Coastal Marine Areas-Volume 3		5. TYPE OF REPORT & PERIOD COVERED Reference publication
		6. PERFORMING ORG. REPORT NUMBER
7. AUTHOR(s) Naval Weather Service Detachment Asheville, N.C.		8. CONTRACT OR GRANT NUMBER(s)
9. PERFORMING ORGANIZATION NAME AND ADDRESS National Climatic Center Federal Building Asheville, N.C. 28801		10. PROGRAM ELEMENT, PROJECT, TASK AREA & WORK UNIT NUMBERS
11. CONTROLLING OFFICE NAME AND ADDRESS Director Naval Oceanography and Meteorology National Space Technology Laboratories Bay St Louis, MS 39520		12. REPORT DATE September 1977
		13. NUMBER OF PAGES 533
14. MONITORING AGENCY NAME & ADDRESS (if different from Controlling Office)		15. SECURITY CLASS. (of this report)
		15a. DECLASSIFICATION/DOWNGRADING SCHEDULE
16. DISTRIBUTION STATEMENT (of this Report)  Approved for public release; distribution unlimited		
17. DISTRIBUTION STATEMENT (of the abstract entered in Block 20, if different from Report)		
18. SUPPLEMENTARY NOTES		
19. KEY WORDS (Continue on reverse side if necessary and identify by block number) Marine Climatology, Coastal Marine Summaries, Australian West Coast, Esperance Bay S, Cape Leeuwin, Perth NW, Shark Bay, Barrow Island, Broome, Cape Talbot		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report presents marine climatological data for specific coastal areas in 21 different tables including weather occurrence, wind direction and speed, cloud amount, ceiling height, visibility, precipitation, dry bulb, relative humidity, air-sea temperature difference, sea height and period, sea surface temperature and sea level pressure.		

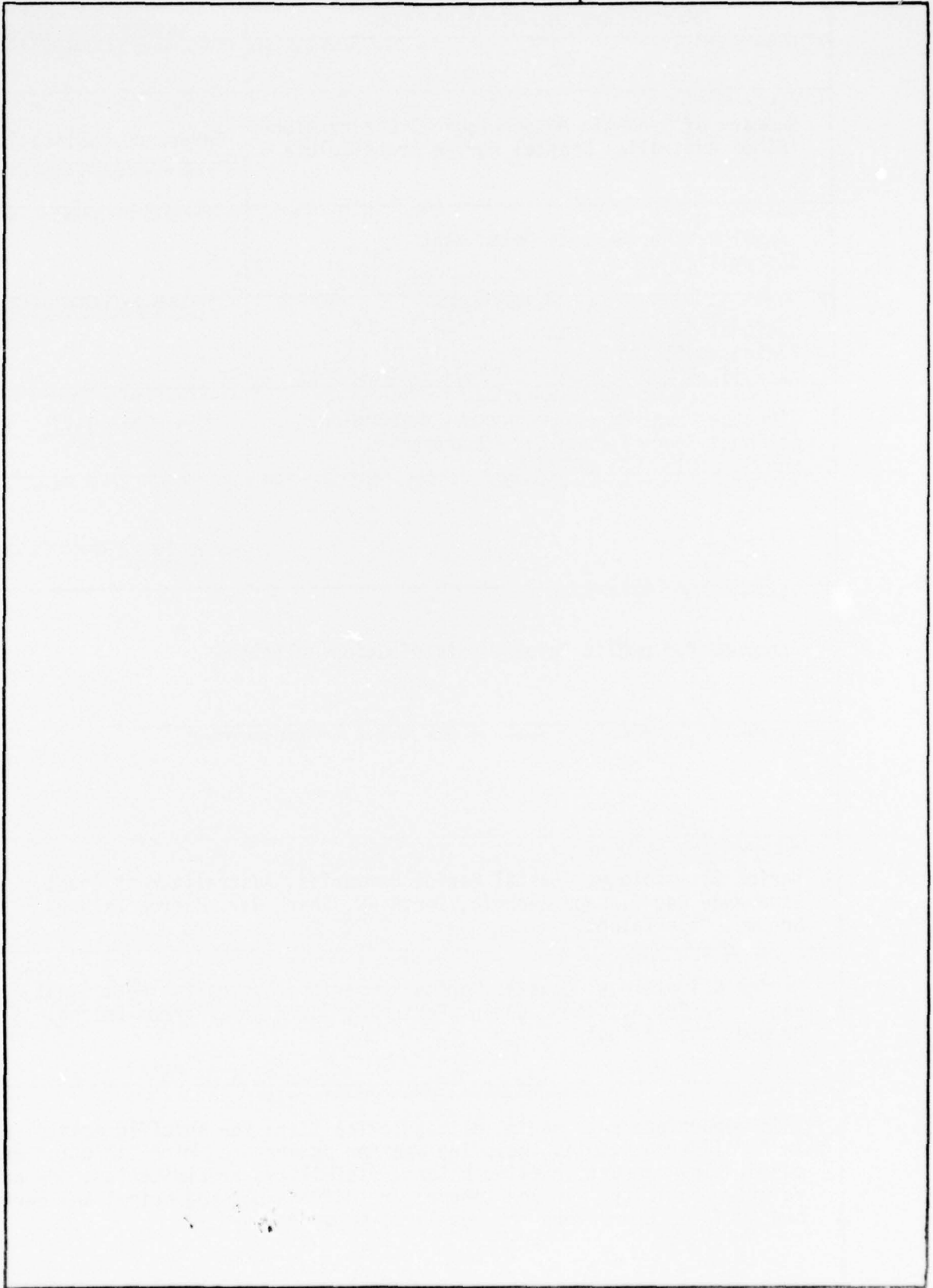
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## SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (MONTHLY AND ANNUAL)

The SSMO series of coastal marine summaries is managed and produced by the Naval Weather Service Detachment, Asheville, N. C. for the Director, Naval Oceanography and Meteorology. A list of published SSMO's is contained in the catalogue part of the "Guide to Standard Weather Summaries and Climatic Services", NAVAIR 50-1C-534.

The data summarized in the following tables were obtained from Tape Data Family 11 (TDF-11) Marine Surface Observations. The development and maintenance of TDF-11 was primarily funded by the Naval Weather Service Command. The source of these marine surface observations was punched cards of weather observations taken aboard vessels of varying registry. These observations were recorded on magnetic tape in a common format. Elements not in WMO code were converted to this code where possible. Where this was not possible, the original data were retained within the tape record as supplemental data. A very limited quality control was attempted as the punched cards were converted to taped records and, where possible, missing psychrometric data were computed.

Before the tables are prepared, extreme values of selected parameters are scrutinized so that obvious errors can be excluded. This method is necessarily subjective since the only available record of many observations is the punched card from which the tape records were prepared. Frequently there

Percentage frequencies are computed to hundredths and rounded to tenths. An asterisk (\*) indicates percentage frequency  $> 0$  and  $< .05$ . A value followed by a plus sign indicates greater than or equal to that value (8+ means 8 or greater). NH = low cloud amount (or middle cloud amount when low clouds are not present). The hours given in this publication are GMT.

The geographic position shown on the tables is the central position (centroid) of the observations within the area.

is no concrete evidence to prove or disprove the validity of questionable data.

Also, it should be noted that these data are based upon observations made by ships in passage. Such ships tend to avoid bad weather when possible, thus biasing the data file toward good weather samples.

Because the number of observations may vary from one table to the other, no absolute relationship exists between the tables. As an example, air temperature counts for Tables 13 and 17 may not be identical since only observations containing both air temperature and relative humidity were counted in Table 13 and only those with both temperature and air-sea temperature difference were counted in Table 17. No requirement for simultaneous recording of all elements was made.

The primary period of record is that period (extending back in time from the most recent data) during which eighty percent of the total number of observations were recorded. The overall period is the earliest to the latest observed data used in compiling the tables. Tables 18 and 19 were tabulated from selected decks only and the overall period indicates the period of record of this data source. The primary period for these tables is not shown.

## THE TABLES

This value may fall outside irregular areas.

Annual values are computed on the basis of the sum of the monthlies divided by the number of months.

Tables 1 through 19 appear in numerical order for each month, with the annual tables appearing after the tables for December. Tables 20 and 21 appear at the end of the entire series, after the annual summary for Table 19. The series of summaries appear in numerical order by area number.

Table 1 - Percentage Frequency of Weather Occurrence by Wind Direction (8 pts.).

Table 2 - Percentage Frequency of Weather Occurrence by Hour (GMT).

Table 3 - Percentage Frequency of Wind Direction (8 pts.) by Speed and by Hour (GMT). This table includes mean wind speed (kts.) by direction (8 pts.).

Table 3A - Percentage Frequency of Wind Direction (8 pts.) by Speed and by Hour (GMT). This table includes mean wind speed (kts.) by direction.

Table 4 - Percentage Frequency of Wind Speed by Hour (GMT). This table includes mean speed by hour.

Table 5 - Percentage Frequency of Total Cloud Amount (Oktas) by Wind Direction (8 pts.). This table includes mean cloud amount by wind direction.

Table 6 - Percentage Frequency of Ceiling Heights (feet, NH > 4/8) and Occurrence of NH < 5/8 by Wind Direction (8 pts.).

Table 7 - Cumulative Percentage Frequency of Occurrence of Ceiling Height (feet, NH > 4/8) and Visibility (Nautical Miles).

Table 7A - Percentage Frequency of Low Cloud Amount (or Middle Cloud Amount if Low Clouds are not present). and Percentage Frequency of Sky Obscured. Amounts are in Oktas.

Table 8 - Percentage Frequency of Wind Direction (8 pts.) vs. Occurrence or Non-Occurrence of Precipitation at Observation Time with Varying Values of Visibility (Nautical Miles).

Table 9 - Percentage Frequency of Wind Direction (8 pts.) vs. Wind Speed (kts.) with Varying Values of Visibility (Nautical Miles).

Table 10 - Percentage Frequency of Ceiling Heights (feet, NH > 4/8) and Occurrence of NH < 5/8 by Hour (GMT).

Table 11 - Percentage Frequency of Visibility (Nautical Miles) by Hour (GMT).

Table 12 - Cumulative Percentage Frequency of Ranges of Visibility (Nautical Miles) and Ceiling Height (feet, NH > 4/8) by Hour (GMT).

Table 13 - Percentage Frequency of Relative Humidity (%) by Air Temperature (° F.).

Table 14 - Percentage Frequency of Wind Direction (8 pts.) by Air Temperature (° F.).

Table 15 - Means, Extremes, and Percentiles of Air Temperature (° F.) by Hour (GMT). Extreme temperatures are the one maximum and one minimum value appearing in the marine data file. The extremes may be unrepresentative due to sampling errors. Extrapolation from the percentile values usually gives a better estimate of expected extreme conditions.

Table 16 - Percentage Frequency of Relative Humidity (%) by Hour (GMT).

Table 17 - Percentage Frequency of Air Temperature (° F.) and the Occurrence of Fog vs. Air-Sea Temperature Difference (° F.).

Air-Sea Temperature Difference is:

Positive when the air is warmer than the sea surface; Negative when the air is cooler than the sea surface. In the table heading, the limits of the temperature ranges appear in a vertical arrangement along the top of the table.

Table 18 - Percentage Frequency of Surface Wind Speed (kts.) and Direction (8 pts.) vs. Sea Height (feet). Source deck 128 for which data are available from mid-1963 was used for these tables. This deck represents the latest and most complete homogeneous source of wave data available. Here, only sea waves generated by local winds in the vicinity of the observer are summarized.



Table 10 - Percentage Frequency of Wave Height (feet) vs. Wave Period (seconds). In this table when both sea and swell waves are present in an observation, the higher of the two is used. If both are the same height, the longer period is chosen. When only one of the wave groups is observed, either sea or swell, it is used in the summary. Swell waves are those generated by winds distant from the local area where the observation is taken.

Tables 1-10 appear together for each month and in the annual summary. The following two tables appear at the end of the entire series for each area.

Note: In this volume, percentage frequencies at specified hours of the day refer to percentages of observations taken at those hours, rather than percentages of observations taken at all hours. Data at adjacent hours are summarized with data at synoptic hours, i.e., data from 02 and 04 GMT are combined with data from 03 GMT.

AREA	NAME	PAGES
16	ESPERANCE BAY S	1-79
17	CAPE LEEUWIN	80-158
18	PERTH NW	159-237
19	SHARK BAY	238-316
20	BARROW ISLAND	317-395
21	BROOME	396-474
22	CAPE TALBOT	475-553

Table 20 - Monthly and Annual Percentage Frequencies and Means of Sea Surface Temperature ( $^{\circ}$  F.).

Table 21 - Monthly and Annual Sea Level Pressures (millibars). This table includes means by hour and for all hours, extreme values and percentile values.

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# CONVERSION OF WIND AND WAVE DIRECTION TO 8 POINTS

A reduced bias system was employed in converting wind and wave directions to 8 points. This method attaches weighting values to observations which overlap two different 8 point sectors and treats them as "decimal observation counts." These decimal quantities are rounded to whole numbers for presentation as "observational counts" in the tables. Figures 1-4 below show the 8 point system with other systems superimposed.

Note: Because of rounding, sub-total sums of "observation counts" may not equal grand totals.



Fig 1 The 8 point direction system.

Fig 2 The 16 point direction system superimposed on the 8 point system.

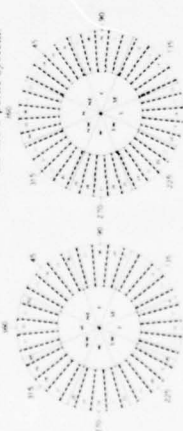


Fig 3 The 32 point direction system superimposed on the 8 point system.

Fig 4 The 36 point direction system superimposed on the 8 point system.

VISIBILITY (VV)		PRESENT WEATHER (1960 WMO CODE 4677)		
CODE	INTERPRETATION (NAUTICAL MILES)	CODE	INTERPRETATION	INTERPRETATION
90-93	VV<1/2	58-59 60-65 91-94 (68-69, 95, 97 IF TEMP > 40° F)	RAIN	FOG (WITHOUT PRECIPITATION) 40-49
94	1/2≤VV<1	80-82, (83-84 IF TEMP > 40° F) 50-55, 58-59	RAIN SHOWERS DRIZZLE	FOG (WITHOUT PRECIPITATION) PAST HOUR 28
95	1≤VV<2	56-57 66-67	FREEZING PRECIPITATION	SMOKE HAZE 04-05
96	2≤VV<5	70-75, 85-86 (68-69, 83-84, 95, 97 IF TEMP ≤ 40° F)	SNOW	SPRAY BLOWING DUST BLOWING SNOW 06-09 30-39
97	5≤VV<10	76-79	OTHER FROZEN PRECIPITATION	NO SIGNIFICANT WEATHER AT OB TIME 00-03 14-16 18
98	10≤VV<25	87-90 93-94 96, 99	HAIL	NO PRECIPITATION AT OB TIME 00-49
99	VV≥25	13, 17 19, 29 95-99	THUNDER LIGHTNING THUNDERSTORM	PRECIPITATION AT OB TIME 50-99 PRECIPITATION PAST HOUR 20-27

NOTE: The following WMO codes were counted in two weather categories. 58-59 (rain and drizzle); 68-69 (rain and snow); 93-94 (rain and hail); 96 and 99 (hail and thunder/lightning/thunderstorm); 95 and 97 (snow and thunder/lightning/thunderstorm); or (rain and thunder/lightning/thunderstorm).

WAVE HEIGHT (from source decks 128 and 116)

RECORDED CODE (HALF METERS)	AS RECORDED RANGE (METERS)	AS RECORDED IN TABULATION (FEET)	RECORDED CODE (HALF METERS)	AS RECORDED RANGE (METERS)	AS RECORDED IN TABULATION (FEET)	RECORDED CODE (HALF METERS)	AS RECORDED RANGE (METERS)	AS RECORDED IN TABULATION (FEET)
00	≤.25}	<1	12	>5.75 to 6.25}	20-22	30	>14.75 to 15.25}	
01	>.25 to .75}	1-2	13	>6.25 to 6.75}		31	>15.25 to 15.75}	
02	>.75 to 1.25}	3-4	14	>6.75 to 7.25}	23-25	32	>15.75 to 16.25}	49-60
03	>1.25 to 1.75}	5-6	15	>7.25 to 7.75}		33	>16.25 to 16.75}	
04	>1.75 to 2.25}	7	16	>7.75 to 8.25}		34	>16.75 to 17.25}	
05	>2.25 to 2.75}	8-9	17	>8.25 to 8.75}	26-32	35	>17.25 to 17.75}	
06	>2.75 to 3.25}	10-11	18	>8.75 to 9.25}		36	>17.75 to 18.25}	
07	>3.25 to 3.75}	12	19	>9.25 to 9.75}				
08	>3.75 to 4.25}	13-16	20	>9.75 to 10.25}		37	>18.25 to 18.75}	61-70
09	>4.25 to 4.75}		21	>10.25 to 10.75}	33-40	38	>18.75 to 19.25}	
10	>4.75 to 5.25}	17-19	22	>10.75 to 11.25}		39	>19.25 to 19.75}	
11	>5.25 to 5.75}		23	>11.25 to 11.75}		40	>19.75 to 20.25}	
			24	>11.75 to 12.25}		41	>20.25 to 20.75}	
			25	>12.25 to 12.75}		42	>20.75 to 21.25}	
			26	>12.75 to 13.25}				
			27	>13.25 to 13.75}	41-48	43	>21.25 to 21.75}	71-86
			28	>13.75 to 14.25}		44	>21.75 to 22.25}	
			29	>14.25 to 14.75}		45	>22.25 to 22.75}	
						46	>22.75 to 23.25}	
						47	>23.25 to 23.75}	
						48	>23.75 to 24.25}	
						49	>24.25 to 24.75}	
						50	>24.75 to 25.25}	
						51	>25.25 to 25.75}	
						52	>25.75 to 26.25}	
						53-99	>26.25 to 49.75}	>87

Indeterminate=INDET

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969

JANUARY

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	
N	1.5	.0	.0	.0	.0	.0	.0	1.5	.0	1.5	.0	.0	1.1	.0	95.9
NE	.8	.3	.3	.0	.0	.0	.0	1.5	.0	.6	2.3	.0	1.3	.0	94.5
E	.3	1.5	1.0	.0	.0	.0	.0	2.8	1.5	1.3	1.6	.0	3.6	.0	89.5
SE	.9	2.4	1.2	.0	.0	.0	.0	4.5	.6	.9	2.1	.0	1.8	.0	90.5
S	1.3	1.4	1.8	.0	.0	.0	.0	4.5	1.2	2.9	1.3	.0	.5	.0	90.3
SW	1.5	3.6	1.1	.0	.0	.0	.0	6.2	1.1	.6	.6	.0	1.1	.0	90.4
W	3.0	5.6	1.8	.0	.0	.0	.0	10.3	1.4	2.5	1.6	.0	1.0	.0	83.2
NW	2.9	2.3	2.3	.0	.0	.0	.0	7.6	.0	2.9	.0	.0	2.3	.0	89.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9	.0	.0	.0	.0	94.1
TOT PCT	1.2	2.1	1.1	.0	.0	.0	.0	4.5	.9	1.5	1.4	.0	1.6	.0	90.4
TOT OBS:	1775														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	
0000	1.8	2.2	1.2	.0	.0	.0	.0	5.1	1.2	.6	1.2	.0	2.4	.0	90.0
0600	1.0	1.5	.7	.0	.0	.0	.0	3.2	1.7	.5	1.0	.0	2.0	.0	92.2
1200	1.7	2.9	1.0	.0	.0	.0	.0	5.6	.2	2.3	2.3	.0	1.4	.0	88.3
1800	1.0	1.7	1.7	.0	.0	.0	.0	4.4	.5	3.4	1.0	.0	.7	.0	90.2
TOT PCT	1.4	2.1	1.1	.0	.0	.0	.0	4.7	.9	1.7	1.4	.0	1.6	.0	90.1
TOT OBS:	1842														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.3	1.8	1.4	.6	.1	.0		4.2	12.5		5.8	8.3	3.3	3.1	1.5	3.8	2.6	5.8
NE	.4	4.2	8.6	2.7	.1	.0		16.1	15.1		19.6	13.6	16.2	15.0	14.9	14.4	18.1	14.0
E	.7	6.2	9.2	1.9	.0	.0		18.0	13.0		15.8	12.9	24.6	14.6	20.5	17.3	21.6	14.9
SE	.7	5.0	3.8	.3	*	.0		9.8	10.3		8.7	9.2	9.0	10.2	11.2	8.9	11.7	9.3
S	1.2	8.7	5.5	1.0	*	.0		16.4	10.6		16.0	13.8	15.7	12.8	19.4	16.9	17.4	16.9
SW	.9	6.4	8.0	3.0	.4	.0		18.7	14.4		15.7	18.9	17.1	21.6	19.7	22.4	16.7	20.9
W	.7	3.6	5.4	1.9	.5	*		12.1	14.9		12.5	14.3	11.5	18.0	10.2	10.9	9.1	13.1
NW	.4	1.6	.9	.2	*	.0		3.3	10.0		4.4	6.2	1.9	4.8	1.7	3.1	1.7	2.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.4							1.4	.0		1.4	2.8	.7	.0	1.0	2.2	1.1	1.8
TOT OBS	167	951	1077	291	29	1	2516		12.9		502	283	291	213	496	225	281	225
TOT PCT	6.6	37.8	42.8	11.6	1.2	*		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	03	06	12
N	1.0	1.8	1.2	.1	.0		4.2	12.5	6.7	3.2	2.2	4.0
NE	1.7	7.3	6.6	.5	*		16.1	15.1	17.5	15.7	14.7	16.3
E	2.9	9.6	5.3	.1	.0		18.0	13.0	14.8	20.3	19.5	18.6
SE	2.6	5.9	1.3	*	.0		9.8	10.3	8.9	9.5	10.5	10.7
S	4.4	9.3	2.4	.3	.0		16.4	10.6	15.2	14.5	18.6	17.2
SW	2.7	9.0	5.5	1.4	.1		18.7	14.4	16.8	19.0	20.5	18.6
W	2.3	5.2	3.3	1.1	.2		12.1	14.9	13.2	14.2	10.4	10.9
NW	1.2	1.7	.3	.1	.0		3.3	10.0	5.1	3.1	2.1	2.4
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.4						1.4	.0	1.9	.4	1.4	1.4
TOT OBS	508	1253	651	94	10	2516		12.9	785	504	721	506
TOT PCT	20.2	49.8	25.9	3.7	.4		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969

JANUARY

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.4	.4	.8	.5	3.7	.0	.0
NE	8.3	2.5	5.3	2.2	3.6	.0	.0
E	6.5	2.9	7.9	4.6	4.6	.0	.0
SE	2.1	1.8	3.3	2.7	5.0	.1	.0
S	2.9	3.1	7.2	3.5	5.1	.0	.0
SW	5.3	3.6	4.6	3.8	4.4	.0	.2
W	3.1	1.8	3.7	1.4	4.2	.0	.0
NW	.4	.6	.6	.2	4.3	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0
CALM	.5	.1	.2	.3	3.8	.0	.0
TOT OBS	316	173	348	198	1035	4.4	
TOT PCT	30.5	16.7	33.6	19.1	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND	DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.4	.4	.8	.5	3.7	.0	.0
NE	8.3	2.5	5.3	2.2	3.6	.0	.0
E	6.5	2.9	7.9	4.6	4.6	.0	.0
SE	2.1	1.8	3.3	2.7	5.0	.1	.0
S	2.9	3.1	7.2	3.5	5.1	.0	.0
SW	5.3	3.6	4.6	3.8	4.4	.0	.2
W	3.1	1.8	3.7	1.4	4.2	.0	.0
NW	.4	.6	.6	.2	4.3	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0
CALM	.5	.1	.2	.3	3.8	.0	.0
TOT OBS	316	173	348	198	1035	4.4	
TOT PCT	30.5	16.7	33.6	19.1	100.0		

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WIND	DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.4	.4	.8	.5	3.7	.0	.0
NE	8.3	2.5	5.3	2.2	3.6	.0	.0
E	6.5	2.9	7.9	4.6	4.6	.0	.0
SE	2.1	1.8	3.3	2.7	5.0	.1	.0
S	2.9	3.1	7.2	3.5	5.1	.0	.0
SW	5.3	3.6	4.6	3.8	4.4	.0	.2
W	3.1	1.8	3.7	1.4	4.2	.0	.0
NW	.4	.6	.6	.2	4.3	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0
CALM	.5	.1	.2	.3	3.8	.0	.0
TOT OBS	316	173	348	198	1035	4.4	
TOT PCT	30.5	16.7	33.6	19.1	100.0		

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.7	.8	.8	.8	.8	.8	.8	.8
>4000	1.7	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>3500	6.6	7.4	7.4	7.4	7.4	7.4	7.4	7.4
>3000	18.3	20.3	20.4	20.4	20.4	20.4	20.4	20.4
>2500	30.9	35.8	36.4	36.4	36.4	36.4	36.4	36.4
>2000	34.4	40.6	41.3	41.3	41.3	41.3	41.3	41.3
>1500	34.5	40.8	41.5	41.5	41.5	41.5	41.5	41.5
>1000	34.5	40.8	41.5	41.5	41.5	41.5	41.5	41.5
>500	34.5	40.9	41.6	41.6	41.6	41.6	41.6	41.6
>0	34.5	40.9	41.6	41.6	41.6	41.6	41.6	41.6
TOTAL	367	435	442	442	442	442	442	442

TOTAL NUMBER OF OBS: 1063

PCT FREQ NH <5/8: 58.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
14.6	15.5	10.7	9.6	7.4	8.1	8.4	10.3	15.3	.0	1156



PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969

JANUARY

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2
	TOT %	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2
1/2<1	PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.2	.2	.2	*	.0	.1	.0	.0	.0	.0	.7
	TOT %	.0	.2	.2	.2	.1	.1	.1	.0	.0	.0	.0	.8
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.1	.1	.1	.1	.1	.1	.1	.0	.0	.0	.7
	TOT %	.0	.1	.1	.1	.1	.1	.1	.1	.0	.0	.0	.7
2<5	PCP	.0	.1	.1	.0	.0	.1	*	*	.0	.0	.0	.3
	NO PCP	.1	.1	.1	.0	.0	.1	.1	.0	.0	.0	.0	.4
	TOT %	.1	.2	.2	.0	.0	.2	.1	*	.0	.0	.0	.7
5<10	PCP	.1	.2	.3	.3	.6	.9	.7	.2	.0	.0	.0	3.2
	NO PCP	1.9	5.6	5.2	2.5	6.2	7.4	3.8	1.3	.0	.3	34.3	
	TOT %	2.0	5.8	5.5	2.8	6.8	8.3	4.5	1.4	.0	.3	37.5	
10+	PCP	.0	.0	.1	.1	.1	.4	.0	.0	.0	.0	.0	.8
	NO PCP	1.8	11.0	12.9	6.3	10.5	9.5	5.8	.9	.0	.6	59.3	
	TOT %	1.8	11.0	13.0	6.4	10.6	9.6	6.2	.9	.0	.6	60.2	
TOT OBS													1775
TOT PCT		3.8	17.4	19.1	9.5	17.6	18.3	10.9	2.4	.0	1.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.1	.2	*	.0	.0	.0	.0	.0	.0	.3
	11-21	.0	.1	.1	.0	.1	.1	.0	.0	.0	.0	.0	.2
	22+	.0	.2	.0	.0	.0	.0	.1	.0	.0	.0	.0	.2
	TOT %	.0	.2	.2	.2	.1	.1	.1	.0	.0	.0	.0	.7
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.1	.1	*	*	.1	.1	.0	.0	.0	.4
	11-21	.0	.1	*	.0	.1	.1	.0	.0	.0	.0	.0	.3
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.1	.1	.1	.1	.1	.1	.0	.0	.0	.6
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.1	.0	.0	.0	.1	.1	*	.0	.0	.0	.2
	11-21	.1	.0	.1	.0	*	.2	*	.0	.0	.0	.0	.4
	22+	.0	.1	.1	.0	.0	.1	.0	.0	.0	.0	.0	.2
	TOT %	.1	.2	.2	.0	*	.3	.1	*	.0	.0	.0	.8
5<10	0-3	.2	.1	.4	.3	.5	.5	.1	.3	.0	.3	2.8	
	4-10	.7	1.7	1.6	.8	3.1	2.6	1.1	.5	.0	.0	12.2	
	11-21	.8	2.7	2.5	1.1	2.1	3.1	2.1	.4	.0	.0	14.8	
	22+	.3	1.0	.7	.3	.6	1.7	.8	.1	.0	.0	5.5	
	TOT %	1.9	5.5	5.2	2.6	6.3	7.8	4.2	1.4	.0	.3	35.2	
10+	0-3	.1	.5	.3	.4	.4	.4	.4	.1	.0	.7	3.1	
	4-10	1.1	2.5	4.5	3.6	6.1	4.2	2.0	.8	.0	.0	24.7	
	11-21	.5	6.6	7.2	2.5	3.7	5.1	3.2	.3	.0	.0	29.1	
	22+	.3	1.4	1.0	.1	.6	1.2	.9	.1	.0	.0	5.5	
	TOT %	2.0	10.9	13.0	6.6	10.7	10.8	6.5	1.2	.0	.7	62.5	
TOT OBS													1921
TOT PCT		3.9	17.0	18.7	9.5	17.2	19.1	10.9	2.7	.0	1.0	100.0	

PERIOD: (PRIMARY) 1912-1949  
(OVER-ALL) 1855-1969

JANUARY

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL DBS
00003	.3	.0	.0	6.3	19.1	16.0	5.9	1.4	.3	1.0	50.3	49.7	288
06009	.0	.0	.0	3.1	12.0	11.3	6.2	1.7	.0	.7	35.1	64.9	291
12015	.0	.0	.7	4.1	16.4	10.8	2.6	1.1	.4	.4	36.4	63.6	269
18021	.0	.0	.0	5.3	13.6	11.7	5.3	.8	.0	.4	37.1	62.9	264
TOT	1	0	2	52	170	139	56	14	2	7	443	669	1112
PCT	.1	.0	.2	4.7	15.3	12.5	5.0	1.3	.2	.6	39.8	60.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL DBS
00003	.2	.4	1.1	.7	40.4	57.3	557
06009	.0	.7	.5	1.2	27.5	70.1	432
12015	.4	1.2	.9	1.1	42.3	54.2	565
18021	.0	.7	.5	.2	28.8	69.8	434
TOT	3	15	15	16	708	1231	1988
PCT	.2	.8	.8	.8	35.6	61.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL DBS
00003	.4	.4	7.5	44.3	48.2	280
06009	.0	.0	4.0	33.0	63.0	276
12015	.0	.8	6.3	32.5	61.2	255
18021	.0	.0	6.0	32.9	61.1	252
TOT	1	3	63	381	619	1063
PCT	.1	.3	5.9	35.8	58.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL DBS	PCT FREQ
75/79	.0	.0	.0	.1	.0	.2	.0	.0	3	.2
70/74	.0	.0	.0	.2	1.3	.6	1.3	.3	48	3.8
65/69	.0	.0	.1	1.3	4.5	9.2	17.5	8.9	524	41.6
60/64	.0	.0	.2	2.6	12.6	14.3	14.0	5.9	625	49.6
55/59	.0	.0	.0	.5	1.3	1.0	1.7	.4	61	4.8
TOTAL	0	0	3	59	249	318	436	196	1261	100.0
PCT	.0	.0	.2	4.7	19.7	25.2	34.6	15.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.4	.0	.1	.0	.0	.0	.0	.0
.2	.8	.7	.2	.5	.4	.7	.2	.0	.1
2.0	10.4	10.4	3.1	4.5	6.2	4.0	1.0	.0	.0
1.0	5.8	8.3	6.0	11.0	9.8	6.0	.6	.0	.9
.1	.1	.4	.5	2.0	1.3	.2	.0	.0	.2
3.3	17.2	20.0	9.8	18.1	17.7	10.9	1.8	.0	1.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL DBS
00003	76	72	69	64	59	58	56	64.4	768
06009	77	75	72	66	61	59	55	66.0	489
12015	73	71	68	63	59	57	55	63.4	723
18021	71	68	67	63	58	57	55	62.6	517
TOT	77	72	69	64	59	57	55	64.1	2497

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL DBS
00003	.0	5.8	22.5	25.1	31.1	15.6	77	347
06009	.0	8.9	26.0	28.3	29.9	6.9	74	304
12015	.0	1.7	14.7	25.1	38.6	19.9	80	347
18021	.0	3.9	16.4	22.6	37.4	19.7	80	305
TOT	0	65	258	329	447	204	78	1303

## JANUARY

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.1	.0	.0	1	.0	.1
9/10	.0	.0	.0	.0	.1	.2	4	.0	.3
7/8	.0	.0	.0	.1	.5	.2	12	.1	.7
6	.0	.0	.0	.1	.5	.0	10	.0	.6
5	.0	.0	.0	.6	.8	.1	23	.1	1.4
4	.0	.1	.0	1.2	1.3	.0	39	.0	2.5
3	.0	.0	.3	3.0	1.0	.1	69	.0	4.5
2	.0	.0	.8	4.9	1.1	.1	105	.2	6.6
1	.0	.0	3.4	8.8	.6	.0	197	.3	12.5
0	.0	.3	7.4	7.9	.5	.0	248	.4	15.7
-1	.0	.8	8.8	5.4	.1	.0	229	.3	14.6
-2	.0	1.5	9.1	3.7	.0	.0	220	.2	14.1
-3	.0	1.4	6.0	1.7	.0	.0	140	.1	9.0
-4	.1	2.5	3.9	.7	.0	.0	111	.0	7.2
-5	.1	1.6	2.5	.4	.0	.0	71	.0	4.6
-6	.1	1.0	.9	.1	.0	.0	32	.0	2.1
-7/-8	.0	.8	.5	.0	.0	.0	21	.0	1.4
-9/-10	.1	.1	.2	.0	.0	.0	6	.0	.4
-11/-13	.0	.0	.0	.1	.0	.0	1	.0	.1
TOTAL	4	155	675	593	102	10	1539	24	1515
PCT	.3	10.1	43.9	38.5	6.6	.6	100.0	1.6	98.4

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.5	.0	.0	.0	.0	.7	.2	.5	.0	.0	.0	.0	.7
1-2	.0	.6	.0	.0	.0	.0	.6	.2	1.8	.8	.0	.0	.0	2.7
3-4	.0	.4	.2	.2	.0	.0	.7	.0	1.5	3.7	.0	.0	.0	5.1
5-6	.0	.2	.7	.3	.0	.0	1.2	.0	.4	4.6	.3	.0	.0	5.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.2	.0	.0	1.8
8-9	.0	.0	.1	.3	.0	.0	.4	.0	.0	.2	.3	.0	.0	.5
10-11	.0	.0	.0	.0	.2	.0	.2	.0	.3	.4	.0	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.7	1.0	.8	.2	.0	3.8	.3	4.6	11.3	1.2	.2	.0	17.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	1.5	.2	.0	.0	.0	1.8	.5	2.2	.3	.0	.0	.0	1.1
1-2	.0	2.5	2.3	.0	.0	.0	4.8	.0	1.5	2.4	.0	.0	.0	3.0
3-4	.0	1.7	4.1	.5	.0	.0	6.3	.0	.7	1.7	.0	.0	.0	2.4
5-6	.0	.3	5.0	.0	.0	.0	5.3	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	2.0	.3	.0	.0	2.3	.0	.2	.3	.0	.0	.0	.5
8-9	.0	.0	.0	.7	.0	.0	.7	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	6.3	13.8	1.7	.0	.0	22.0	.5	4.6	5.0	.2	.0	.0	10.3



PERIOD: (OVER-ALL) 1963-1969

JANUARY

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.8	.0	.0	.0	.0	.9	.0	.8	.0	.0	.0	.0	.8
1-2	.3	3.5	1.2	.0	.0	.0	5.0	.1	2.8	.4	.0	.0	.0	3.3
3-4	.0	3.1	3.2	.0	.0	.0	6.3	.0	2.3	3.6	.1	.0	.0	6.0
5-6	.0	.7	2.0	.3	.0	.0	3.0	.0	.5	2.8	.2	.0	.0	3.5
7	.0	.0	.3	.0	.0	.0	.3	.0	.2	1.2	.7	.0	.0	2.2
8-9	.0	.0	.2	.4	.0	.0	.6	.0	.0	.5	.2	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	8.1	6.9	.7	.0	.0	16.1	.1	6.6	8.5	1.6	.0	.0	16.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.1	1.5	.1	.0	.0	.0	1.7	.0	.2	.2	.0	.0	.0	.4	.0
3-4	.0	.9	2.5	.2	.0	.0	3.7	.0	.6	.5	.0	.0	.0	1.0	.0
5-6	.0	.3	1.3	.6	.0	.0	2.2	.0	.0	.2	.2	.0	.0	.3	.0
7	.0	.1	.4	.4	.3	.0	1.2	.0	.0	.0	.0	.0	.0	.1	.0
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.3	.2	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.3	.2	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	3.3	4.8	2.1	.7	.0	11.0	.0	.8	.8	.2	.0	.0	1.8	99.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.8	4.6	.2	.0	.0	.0	6.6	
1-2	1.2	14.9	5.3	.0	.0	.0	21.3	
3-4	.0	12.1	19.8	1.0	.0	.0	32.9	
5-6	.0	3.1	18.2	2.0	.0	.0	23.3	
7	.0	.2	5.8	1.7	.3	.0	8.1	
8-9	.0	.2	1.5	2.0	.0	.0	3.6	
10-11	.0	.3	.7	.8	.3	.0	2.1	
12	.0	.0	.0	.5	.2	.0	.7	
13-16	.0	.0	.3	.2	.0	.0	.5	
17-19	.0	.3	.0	.3	.0	.0	.7	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.0	35.9	51.7	8.4	1.0	.0	100.0	605

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	3.2	6.0	4.3	1.9	1.2	.6	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	161	4
6-7	.0	.0	4.2	7.1	5.4	3.0	2.0	1.3	.6	.0	.2	.0	.2	.2	.0	.0	.0	.0	.0	209	7
8-9	.0	.0	1.7	4.9	10.2	6.0	5.9	.5	1.3	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	273	8
10-11	.0	.1	.8	.9	3.0	3.4	1.6	.6	1.0	.2	.1	.0	.1	.0	.0	.0	.0	.0	.0	103	9
12-13	.0	.0	.1	.3	.5	1.5	.9	1.2	.7	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	52	11
>13	.0	.0	.0	.2	.2	.1	.6	.2	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	15	10
INDET	.6	.6	1.0	1.7	1.5	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	54	5
TOTAL	14	34	120	168	196	136	101	35	33	10	10	2	3	2	0	0	0	0	0	864	7
PCT	1.6	3.9	13.9	19.4	22.7	15.7	11.7	4.1	3.8	1.2	1.2	.2	.3	.2	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1909-1969  
(OVER-ALL) 1855-1969

FEBRUARY

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
N	1.1	2.3	.6	.0	.0	.0	.0	4.0	.0	2.6	.6	.0	.9	.0	.0	92.0	
NE	1.3	.0	1.4	.0	.0	.0	.0	2.4	.6	2.9	1.4	.0	2.2	.0	.0	90.6	
E	2.7	.3	1.7	.0	.0	.0	.0	4.4	.3	.8	1.3	.0	.7	.0	.0	92.7	
SE	4.5	2.3	2.1	.0	.0	.0	.0	8.0	1.2	1.0	.0	.4	1.1	.0	.0	88.3	
S	.9	3.0	1.6	.0	.0	.0	.4	5.9	.7	.4	2.2	.0	.6	.0	.0	90.2	
SW	.7	4.0	.8	.0	.0	.0	.0	5.6	.7	.3	1.8	.0	1.1	.0	.0	90.5	
W	.5	7.1	1.2	.0	.0	.0	.0	8.8	2.3	.0	3.4	.0	2.3	.0	.0	83.2	
NW	2.2	.0	2.2	.0	.0	.0	.0	4.5	.0	.0	1.1	.0	1.1	.0	.0	93.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
TOT PCT	1.8	2.2	1.4	.0	.0	.0	.1	5.2	.7	1.1	1.5	.1	1.2	.0	.0	90.2	
TOT OBS:	1874																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
00003	2.1	2.5	2.1	.0	.0	.0	.0	6.4	.6	.2	1.6	.0	2.1	.0	.0	89.1	
06009	1.4	1.9	.5	.0	.0	.0	.0	3.5	.7	.0	1.2	.0	1.6	.0	.0	93.1	
12015	1.5	1.6	1.5	.0	.0	.0	.2	4.6	.9	1.1	1.8	.0	1.3	.0	.0	90.3	
18021	1.8	2.5	1.4	.0	.0	.0	.0	5.7	.9	3.2	1.4	.2	.2	.0	.0	88.6	
TOT PCT	1.7	2.1	1.4	.0	.0	.0	.1	5.1	.8	1.1	1.5	.1	1.3	.0	.0	90.2	
TOT OBS:	1993																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	1.9	1.6	.7	.*	.0		4.9	13.2		5.7	5.3	6.0	3.7	3.5	5.6	4.4	5.3
NE	.6	5.7	8.5	3.6	.2	.0		18.6	15.2		21.1	15.5	20.2	19.0	17.5	18.0	20.0	20.0
E	1.1	7.0	9.4	1.8	.1	.0		19.4	12.8		15.5	15.4	19.5	21.5	22.8	19.9	21.2	17.9
SE	.6	5.8	5.3	.5	.0	.0		12.3	11.2		12.1	9.2	15.2	9.1	14.8	10.3	14.5	9.9
S	1.0	7.7	5.6	1.0	.*	.0		15.4	11.1		15.7	15.0	17.0	15.8	15.2	14.3	16.2	15.7
SW	.5	6.4	7.1	2.8	.2	.0		16.9	13.9		14.7	22.8	12.6	22.8	15.7	20.2	11.2	19.7
W	.4	3.5	3.3	1.6	.1	.0		8.8	13.8		8.8	12.2	6.7	10.4	8.4	8.1	6.9	8.9
NW	.2	1.1	.7	.2	.0	.0		2.2	10.7		4.2	3.3	2.7	.8	.6	1.2	1.7	2.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.6							1.6	.0		2.1	1.3	.0	.8	1.5	2.4	2.0	2.3
TOT OBS	168	1062	1129	334	19	0	2712		12.8		518	314	297	241	534	252	299	257
TOT PCT	6.2	39.2	41.6	12.3	.7	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	1.1	2.0	1.5	.3	.0			4.9	13.2	5.5	5.0	4.2	4.8
NE	2.6	7.5	7.3	1.8	.0			18.6	15.2	19.0	17.9	17.6	20.0
E	3.4	10.2	5.2	.6	.0			19.4	12.8	15.5	20.4	21.9	20.7
SE	2.8	7.3	2.0	.1	.0			12.3	11.2	11.0	12.5	13.4	12.4
S	4.3	7.9	2.9	.3	.0			15.4	11.1	15.5	16.4	14.9	15.1
SW	3.2	7.6	4.9	1.2	.*			16.9	13.9	17.8	17.2	17.2	15.2
W	1.8	3.8	2.6	.6	.0			8.8	13.8	10.1	8.4	8.3	7.8
NW	.8	.8	.5	.*	.0			2.2	10.7	3.9	1.9	.8	1.9
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0
CALM	1.6							1.6	.0	1.8	.4	1.8	2.2
TOT OBS	586	1275	732	118	1	2712			12.8	832	538	786	556
TOT PCT	21.6	47.0	27.0	4.4	.*			100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1909-1969  
(OVER-ALL) 1859-1969

FEBRUARY

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	1.8	5.9	40.9	40.4	10.3	.7	.0	12.2	100.0	832	
06009	.4	3.3	36.8	44.4	14.3	.7	.0	13.7	100.0	538	
12015	1.8	4.6	38.2	42.0	13.0	.5	.0	13.0	100.0	786	
18021	2.2	4.0	40.3	40.3	12.4	.9	.0	12.7	100.0	556	
TOT	4.3	12.5	106.2	112.9	33.4	1.9	0	12.8		2712	
PCT	1.6	4.6	39.2	41.6	12.3	.7	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.5	.8	1.4	.4	3.8	3.8
NE	9.0	3.6	4.2	3.1	3.5	3.5
E	5.3	2.0	6.5	6.0	5.1	5.1
SE	1.2	2.0	6.3	5.8	6.1	6.1
S	3.2	3.3	6.6	3.8	5.1	5.1
SW	2.2	3.0	5.1	2.3	5.0	5.0
W	1.6	1.5	2.6	1.7	5.0	5.0
NW	.6	.4	1.4	.2	4.7	4.7
VAR	.0	.0	.0	.0	.0	.0
CALM	.5	.3	.5	.1	3.4	3.4
TOT OBS	26.5	17.8	36.3	24.8	105.4	4.8
TOT PCT	25.1	16.9	34.4	23.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/R)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.4	.5	.2	.0	.1	.0	2.8	
.0	.0	.1	.7	2.5	1.5	.8	.1	.0	.0	14.2	
.0	.1	.2	1.9	4.2	2.0	1.1	.0	.2	.0	10.0	
.0	.1	.2	3.9	2.4	1.0	.2	.1	.1	.1	5.4	
.0	.1	.3	9	3.2	2.9	1.5	.3	.0	.0	7.7	
.0	.0	.0	.7	2.1	1.8	1.3	.3	.0	.2	6.2	
.0	.0	.2	.5	1.2	1.2	.5	.1	.0	.0	3.7	
.0	.0	.0	.2	.1	.1	.4	.0	.0	.1	1.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.8	
0	2	9	75	189	134	72	11	3	6	553	1054
.0	.2	.9	7.1	17.9	12.7	6.8	1.0	.3	.6	52.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/R) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				VSBY (NM)				VSBY (NM)			
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0	= OR >10	= OR >5	= OR >2	= OR >1
= OR >5000	.7	.9	.9	.9	.9	.9	.9	.9	.7	.9	.9	.9
= OR >5000	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.6	2.0	2.0	2.0
= OR >5000	7.6	9.0	9.0	9.0	9.0	9.0	9.0	9.0	7.6	9.0	9.0	9.0
= OR >2000	19.3	21.5	21.5	21.5	21.5	21.5	21.5	21.5	19.3	21.5	21.5	21.5
= OR >1000	34.6	39.0	39.3	39.3	39.3	39.3	39.3	39.3	34.6	39.0	39.3	39.3
= OR >600	40.3	45.8	46.2	46.3	46.3	46.3	46.3	46.3	40.3	45.8	46.2	46.3
= OR >300	40.6	46.7	47.1	47.2	47.2	47.2	47.2	47.2	40.6	46.7	47.1	47.2
= OR >150	40.8	46.9	47.3	47.4	47.4	47.4	47.4	47.4	40.8	46.9	47.3	47.4
= OR >0	40.8	46.9	47.3	47.4	47.4	47.4	47.4	47.4	40.8	46.9	47.3	47.4
TOTAL	437	503	507	508	508	508	508	508	437	503	507	508

TOTAL NUMBER OF OBS: 1072

PCT FREQ NH <5/R: 52.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
11.5	11.6	10.9	10.3	7.7	6.3	7.4	13.7	20.4	.0	1170

PERIOD: (PRIMARY) 1909-1969  
(OVER-ALL) 1855-1969

FEBRUARY

AREA 0016 ESPERANCE BAY S  
35.4S 120.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.1	.0	.1	.0	*	*	.0	.0	.0	.0	.2	
	NO PCP	.0	.1	.1	.0	.0	.1	.1	.0	.0	.0	.3	
	TOT %	.1	.1	.1	.0	*	.1	.1	.0	.0	.0	.4	
1<2	PCP	.0	.1	.1	.0	.0	.1	.0	.0	.0	.0	.2	
	NO PCP	.1	.2	.1	.1	.1	.1	.2	*	.0	.0	.9	
	TOT %	.1	.3	.2	.1	.1	.2	.2	*	.0	.0	1.1	
2<5	PCP	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	.1	.1	*	.0	.1	.0	.0	.0	.4	
	TOT %	.0	.1	.1	.2	*	.0	.1	.0	.0	.0	.5	
5<10	PCP	.1	.2	.6	.8	.7	.7	.5	.1	.0	.0	3.8	
	NO PCP	1.7	6.6	5.9	3.1	4.2	7.9	3.4	.9	.0	.1	33.8	
	TOT %	1.8	6.9	6.5	4.0	4.9	8.6	4.0	1.0	.0	.1	37.7	
10+	PCP	.0	.1	.2	.2	.2	.1	.2	.0	.0	.0	.9	
	NO PCP	2.8	11.6	13.0	8.5	9.7	7.5	4.2	1.4	.0	.7	59.4	
	TOT %	2.8	11.7	13.2	8.6	9.9	7.6	4.5	1.4	.0	.7	60.3	
TOT OBS													1873
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	*	*
	4-10	*	*	.0	.0	*	*	.0	.0	.0	.0	.1	.1
	11-21	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.1	*	.0	.0	.0	.1	.1
	TOT %	*	*	.1	.0	*	.1	*	.0	.0	.0	.4	.4
1<2	0-3	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	*
	4-10	.0	*	.0	*	.0	.1	.1	*	.0	.0	.2	.2
	11-21	.0	.1	.0	.1	*	.1	*	.0	.0	.0	.4	.4
	22+	*	.1	.1	.0	.0	.0	.0	.0	.0	.0	.3	.3
	TOT %	*	.3	.1	.1	.1	.2	.2	*	.0	.0	1.0	1.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	*	.0	*	*	*	*	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	*	*	.0	.0	.0	.0	.0	*	*
	22+	.0	.1	.1	.1	.0	.0	*	.0	.0	.0	.3	.3
	TOT %	.0	.1	.1	.2	*	*	.1	.0	.0	.0	.5	.5
5<10	0-3	.1	.2	.4	.3	.3	.3	.2	.2	.0	*	2.0	2.0
	4-10	.7	2.0	2.1	1.0	2.0	2.4	1.0	.4	.0	.0	11.7	11.7
	11-21	.6	2.8	3.0	2.1	2.0	3.7	1.5	.3	.0	.0	15.8	15.8
	22+	.3	1.3	.6	.3	.4	1.5	.9	*	.0	.0	5.4	5.4
	TOT %	1.7	6.3	6.1	3.6	4.7	7.8	3.6	.9	.0	*	34.9	34.9
10+	0-3	.3	.3	.6	.2	.7	.2	.1	.1	.0	1.2	3.8	3.8
	4-10	.9	3.4	4.7	4.4	5.3	3.5	2.0	.6	.0	.0	24.9	24.9
	11-21	1.1	5.6	7.3	3.9	3.9	3.2	2.0	.4	.0	.0	27.5	27.5
	22+	.5	2.7	1.2	.2	.5	1.0	.9	.1	.0	.0	7.1	7.1
	TOT %	2.8	12.1	13.8	8.7	10.4	8.0	5.0	1.3	.0	1.2	63.2	63.2
TOT OBS													2051
TOT PCT													100.0

PERIOD: (PRIMARY) 1909-1969  
(OVER-ALL) 1855-1969

# FEBRUARY

AREA 0016, ESPERANCE BAY S  
35.45 120.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.7	9.2	21.2	12.7	8.1	1.1	.0	1.1	54.1	45.9	283
06009	.0	.0	1.0	5.8	12.5	14.6	6.1	.7	.0	.0	41.4	58.6	295
12015	.0	.0	.4	5.8	16.7	9.4	6.2	.7	.4	.7	40.2	59.8	276
18021	.0	.8	1.5	6.1	17.8	11.4	6.4	1.5	.4	.4	46.2	53.8	264
TOT	0	2	10	75	190	135	75	11	4	6	508	610	1118
PCT	.0	.2	.9	6.7	17.0	12.1	6.7	1.0	.4	.5	45.4	54.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.5	1.9	.3	39.3	57.9	575
06009	.0	.4	.7	.9	27.8	70.3	461
12015	.0	.5	1.0	.8	40.2	57.5	609
18021	.0	.0	.6	.0	32.3	67.1	465
TOT	0	8	23	11	749	1319	2110
PCT	.0	.4	1.1	.5	35.5	62.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH > 4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.0	.7	10.3	45.8	44.0	273
06009	.0	1.1	7.9	35.7	56.4	280
12015	.0	.4	7.1	35.0	57.9	266
18021	.0	2.4	8.7	39.5	51.8	253
TOT	0	12	91	418	563	1072
PCT	.0	1.1	8.5	39.0	52.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.0	.0	.1	.0	1	.1
70/74	.0	.0	.0	.3	1.2	1.5	1.4	.3	61	4.8
65/69	.0	.0	.1	1.2	5.0	12.9	20.7	12.6	673	52.5
60/64	.0	.0	.1	3.0	10.5	12.2	10.7	4.4	526	41.0
55/59	.0	.0	.0	.2	.6	.5	.2	.0	19	1.5
50/54	.0	.0	.0	.0	.0	.0	.1	.1	2	.2
TOTAL	0	0	2	61	223	348	425	223	1282	100.0
PCT	.0	.0	.2	4.8	17.4	27.1	33.2	17.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	C&M
.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
.6	1.5	1.0	.5	.3	.2	.6	.2	.0	.0
2.7	13.2	13.2	4.7	5.1	6.5	4.6	1.8	.0	.7
.6	3.5	7.6	8.9	8.2	7.7	3.8	.4	.0	.4
.0	.0	.1	.3	.4	.6	.1	.0	.0	.0
.0	.0	.1	.0	*	*	.0	.0	.0	.0
3.9	18.3	21.9	14.3	14.0	15.0	9.0	2.4	.0	1.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	77	73	70	65	60	58	55	65.4	845
06009	77	74	72	67	62	59	54	65.6	538
12015	77	71	69	64	60	58	54	64.4	792
18021	73	70	68	64	60	58	52	63.9	567
TOT	77	73	70	65	60	58	52	65.0	2742

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	7.5	18.3	24.6	31.4	18.3	78	334
06009	.0	7.0	25.2	31.5	25.5	10.8	75	314
12015	.0	2.9	18.3	25.1	39.9	15.7	79	343
18021	.0	9.1	11.3	26.3	35.3	24.1	81	320
TOT	0	67	232	351	435	226	78	1311



## FEBRUARY

PERIOD: (PRIMARY) 1909-1969  
(OVER-ALL) 1855-1969

AREA 0014 ESPERANCE BAY S  
35.4S 120.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
9/10	.0	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
7/8	.0	.0	.0	.0	.1	.1	.4	.0	10	.0	.6
6	.0	.0	.0	.0	.1	.2	.1	.0	7	.0	.4
5	.0	.0	.0	.0	.1	.9	.1	.0	19	.0	1.1
4	.0	.0	.0	.1	.4	1.4	.1	.0	33	.0	1.9
3	.0	.0	.0	.2	2.3	2.1	.0	.0	78	.0	4.6
2	.0	.0	.2	.4	4.2	1.8	.0	.0	113	.1	6.6
1	.0	.0	.0	1.4	8.2	1.5	.0	.0	188	.4	10.7
0	.0	.0	.2	3.4	12.4	.6	.0	.0	281	.3	16.2
-1	.0	.0	.1	7.2	9.7	.2	.0	.0	291	.4	16.8
-2	.0	.0	.4	7.2	6.1	.0	.0	.0	234	.1	13.7
-3	.0	.0	.8	7.4	2.3	.1	.0	.0	179	.4	10.2
-4	.0	.0	1.1	4.5	.8	.0	.0	.0	109	.1	6.3
-5	.0	.1	.7	2.9	.2	.0	.0	.0	66	.1	3.8
-6	.0	.1	.5	1.6	.3	.0	.0	.0	42	.0	2.5
-7/-8	.0	.1	1.1	.9	.1	.0	.0	.0	35	.0	2.1
-9/-10	.1	.1	.4	.1	.0	.0	.0	.0	10	.0	.6
-11/-13	.0	.0	.1	.1	.0	.0	.0	.0	2	.0	.1
TOTAL	1	4	91	635	151	13	1	1699	29	1670	
PCT	.1	.2	5.4	37.4	47.3	8.9	.8	.1	100.0	1.7	98.3

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.6	.0	.0	.0	.0	.0	.6	.4	.7	.0	.0	.0	.0	1.1
1-2	.1	.8	.2	.0	.0	.0	1.1	.*	2.3	.6	.0	.0	.0	2.9
3-4	.0	.2	.9	.0	.0	.0	1.1	.0	1.5	2.5	.4	.0	.0	4.3
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.2	3.5	1.3	.0	.0	5.0
7	.0	.1	.1	.4	.1	.0	.8	.0	.1	1.6	1.5	.*	.0	3.2
8-9	.0	.0	.1	.4	.0	.0	.5	.0	.2	.4	1.9	.0	.0	2.5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	1.3	.0	.0	1.5
12	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	1.1	1.6	.9	.1	.0	4.4	.4	4.9	8.7	6.9	.*	.0	21.0

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.8	.4	.0	.0	.0	.0	1.2	.0	.4	.0	.0	.0	.0	.4
1-2	.0	4.2	.6	.0	.0	.0	4.8	.0	3.2	.4	.0	.0	.0	3.6
3-4	.2	2.4	4.0	.1	.0	.0	6.7	.0	1.9	3.6	.0	.0	.0	5.5
5-6	.2	.6	4.0	.8	.0	.0	5.5	.0	.6	3.2	.1	.0	.0	3.8
7	.0	.1	1.7	.8	.0	.0	2.6	.0	.0	.7	.2	.0	.0	.8
8-9	.0	.0	.5	.6	.0	.0	1.1	.0	.2	.0	.5	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	7.7	10.8	2.5	.0	.0	22.1	.0	6.2	7.8	.7	.0	.0	14.8

PERIOD: (OVER-ALL) 1963-1969

FEBRUARY

AREA 0016 ESPERANCE BAY 5  
35.45 120.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.6	.6	.0	.0	.0	.0		1.3	.7	.3	.0	.0	.0	.0		.5
1-2	.2	2.3	.8	.0	.0	.0		3.2	.0	1.9	.5	.0	.0	.0		2.4
3-4	.0	.0	2.7	.2	.0	.0		5.6	.0	.9	2.3	.1	.0	.0		3.2
5-6	.0	.4	2.1	.6	.0	.0		3.1	.0	.7	1.7	.6	.0	.0		3.0
7	.0	.0	1.8	.2	.0	.0		2.0	.0	.6	.6	.3	.0	.0		1.5
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.2	.6	.3	.0	.0		1.1
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.2	.0	.2	.0	.0		.3	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.2	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.8	6.1	7.4	1.3	.0	.0		15.6	.2	4.6	5.6	1.4	.0	.0		11.8

HGT	W							PCT	NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.2	.0	.0	.0	.0	.0		.2	.0	.2	.0	.0	.0	.0		.2
1-2	.0	1.4	.3	.0	.0	.0		1.7	.2	.4	.2	.0	.0	.0		.7
3-4	.0	.6	.7	.2	.0	.0		1.5	.0	.3	.2	.0	.0	.0		.5
5-6	.0	.0	.7	1.0	.0	.0		1.7	.0	.0	.2	.0	.0	.0		.2
7	.0	.0	.5	.2	.0	.0		.6	.0	.0	.2	.0	.0	.0		.2
8-9	.0	.0	.2	.2	.1	.0		.5	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.2	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.2	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.2	2.0	2.5	1.8	.1	.0		6.5	.2	.8	.6	.0	.0	.0		97.9

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.8	2.7	.0	.0	.0	.0	7.6	
1-2	.6	16.6	3.5	.0	.0	.0	20.7	
3-4	.2	10.3	16.7	1.0	.0	.0	28.1	
5-6	.2	2.4	15.6	4.3	.0	.0	22.5	
7	.0	1.0	7.1	3.5	.2	.0	11.7	
8-9	.0	.5	1.8	3.9	.2	.0	6.3	
10-11	.0	.0	.2	1.4	.0	.0	1.6	
12	.0	.0	.2	.8	.0	.0	1.0	
13-16	.0	.0	.0	.5	.0	.0	.5	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.8	33.6	44.9	15.4	.3	.0	100.0	622

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	3.2	6.1	3.3	2.6	1.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	161	4
6-7	.1	.3	4.4	6.4	5.8	3.4	2.0	.4	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	218	6
8-9	.0	.4	.6	6.0	6.2	7.2	3.4	1.0	1.1	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	238	8
10-11	.0	.0	.1	2.3	2.6	2.6	1.2	1.2	2.0	.3	.0	.0	.2	.0	.0	.0	.0	.0	.0	115	9
12-13	.0	.0	.0	.3	1.1	1.2	1.4	.6	.7	.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	55	10
13	.0	.0	.0	.2	.1	.7	.2	.4	.8	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	25	11
INDFT	7	1.5	2.4	1.7	1.0	1.7	.9	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	93	5
TOTAL	16	50	124	183	177	162	86	36	49	11	8	2	2	0	0	0	0	0	0	905	7
PCT	1.8	5.5	13.7	20.2	19.5	17.9	9.5	4.0	5.4	1.2	.9	.2	.2	.0	.0	.0	.0	.0	.0	100.0	

## MARCH

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1855-1971

AREA 0016 ESPERANCE RAY S  
35.45 120.7E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	3.6	2.4	.0	.0	.0	.0	6.0	.9	.9	2.2	.0	1.8	.0	88.2
NE	1.1	1.0	1.5	.0	.0	.0	.0	3.6	1.0	2.5	2.0	.0	.9	.1	89.8
E	1.4	1.1	1.9	.0	.0	.0	.0	4.4	.5	.7	.7	.2	.4	.2	93.1
SE	.9	1.5	3.4	.0	.0	.0	.0	5.8	1.8	1.2	.6	.7	.3	.0	90.2
S	1.3	1.7	2.5	.0	.0	.0	.0	5.5	1.6	.8	4.1	.0	.2	.0	87.8
SW	1.2	4.5	1.7	.0	.0	.0	.0	7.4	2.0	.9	.7	.0	.7	.0	88.6
W	1.4	4.8	1.4	.0	.0	.0	.0	7.7	.7	.0	.6	.0	.3	.0	90.7
NW	4.2	3.9	.3	.0	.0	.0	.0	8.4	.0	.6	.6	.0	.3	.0	90.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.3	2.6	1.9	.0	.0	.0	.0	5.7	1.2	1.0	1.5	.1	.6	*	90.0
TOT OBS:	2106														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	1.2	3.2	2.0	.0	.0	.0	.0	6.4	.7	.0	1.9	.3	1.0	.0	89.7
06009	1.0	1.8	1.6	.0	.0	.0	.0	4.5	1.2	.4	1.2	.3	.4	.0	92.2
12015	.8	3.2	1.9	.0	.0	.0	.0	5.9	1.2	2.0	1.5	.0	.7	.2	88.9
18021	2.4	1.4	2.2	.0	.0	.0	.0	6.0	1.6	1.8	1.2	.0	.0	.0	89.6
TOT PCT	1.3	2.5	1.9	.0	.0	.0	.0	5.8	1.2	1.1	1.5	.1	.6	*	90.0
TOT OBS:	2168														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	2.3	2.6	.7	.1	.0		6.0	12.8		8.3	8.9	6.0	6.1	2.5	5.5	4.2	8.2
NE	.5	4.9	9.6	3.7	.2	.0		18.9	15.3		19.9	17.7	17.8	19.0	16.7	18.8	21.5	20.7
E	1.0	7.4	9.0	1.6	.0	.0		17.9	12.2		15.8	14.0	18.1	19.0	20.6	21.0	17.9	17.4
SE	.5	4.9	3.2	.3	*	.0		9.0	10.6		7.3	9.7	6.9	12.3	10.0	9.4	8.2	10.5
S	.9	6.5	5.5	.8	.2	.0		13.8	11.4		14.1	12.5	12.5	14.5	14.7	15.5	12.9	13.1
SW	.6	7.0	8.3	2.3	.6	*		18.9	14.1		17.5	15.1	20.6	16.3	23.1	17.3	18.9	18.6
W	.7	3.6	4.0	1.8	.4	.1		10.7	15.1		11.7	14.5	13.7	8.1	8.7	9.0	10.3	8.4
NW	.3	1.7	1.5	.3	.0	*		3.8	11.9		3.8	6.1	4.2	3.6	2.8	2.3	4.8	2.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.1							1.1	.0		1.6	1.5	.3	1.2	.9	1.2	1.3	.4
TOT OBS	185	1192	1333	360	45	5	3120		13.1		620	344	373	253	632	256	373	269
TOT PCT	5.9	38.2	42.7	11.5	1.4	.2		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	09	12
N	1.4	2.6	1.8	.2	.0			6.0	12.8		8.5	6.0	3.4
NE	1.9	8.6	7.3	.9	*			18.9	15.3		19.1	18.3	17.3
E	3.3	9.8	4.7	.1	.0			17.9	12.2		15.2	18.5	20.7
SE	2.3	5.1	1.5	.1	*			9.0	10.6		8.2	9.1	9.8
S	3.4	7.8	2.1	.4	*			13.8	11.4		13.5	13.3	14.9
SW	3.2	9.5	4.7	1.3	.2			18.9	14.1		16.6	18.8	21.4
W	2.1	4.3	3.0	1.1	.2			10.7	15.1		12.7	11.4	8.8
NW	1.0	1.8	.8	.2	*			3.8	11.9		4.8	4.0	2.7
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0
CALM	1.1							1.1	.0		1.6	.6	1.0
TOT OBS	015	1547	812	130	16	3120		13.1			964	626	888
TOT PCT	19.7	49.6	26.0	4.2	.5			100.0			100.0	100.0	100.0



PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1854-1971

MARCH

AREA 0016 ESPERANCE BAY S  
35.45 120.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	1.6	6.5	37.4	39.9	12.7	1.7	.2	13.0	100.0	964
0600	.6	3.8	35.5	47.9	10.4	1.4	.3	13.6	100.0	826
1200	1.0	4.4	39.0	42.3	11.9	1.4	.0	13.2	100.0	888
1800	.9	3.9	41.0	42.4	10.4	1.2	.2	12.7	100.0	642
TOT	34	151	1192	1333	360	45	5	13.1		3120
PCT	1.1	4.8	38.2	42.7	11.5	1.4	.2	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.7	.8	2.0	.5		4.0
NE	7.5	3.5	5.3	2.8		3.8
E	4.8	2.8	6.6	4.0		4.8
SE	1.6	.8	1.9	2.6		5.5
S	2.1	2.0	6.0	3.8		5.5
SW	3.1	3.8	8.8	4.8		5.3
W	2.4	1.9	4.1	3.1		5.2
NW	1.6	.7	.9	.9		4.1
VAR	.0	.0	.0	.0		.0
CALM	.3	.0	.2	.0		3.1
TOT OBS	334	217	476	298	1325	4.8
TOT PCT	25.2	16.4	35.9	22.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.1	.0	.4	.7	.1	.1	.1	.1	3.5	
NE	.0	.0	.2	.9	1.5	1.6	.9	.3	.1	.2	13.6	
E	.0	.0	.5	1.3	2.6	2.2	.9	.3	.1	.3	10.0	
SE	.0	.0	.0	.9	.9	1.1	.5	.5	.0	*	3.0	
S	.1	.1	1.2	3.1	2.5	.8	.4	.0	.1	.1	5.7	
SW	.0	.0	.0	1.5	4.2	3.2	1.0	.4	.1	.1	10.1	
W	.0	.0	.1	.9	2.0	1.2	.7	.3	.1	.0	6.3	
NW	.0	.0	*	.1	.3	.4	.2	.0	.0	.1	3.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.3	
TOT OBS	1	1	13	90	199	172	68	29	6	10	736	1325
TOT PCT	.1	.1	1.0	6.8	15.0	13.0	5.1	2.2	.5	.8	55.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3
>4000	3.1	3.4	3.4	3.4	3.4	3.4	3.4	3.4
>3500	7.7	8.4	8.6	8.6	8.6	8.6	8.6	8.6
>3000	19.3	21.4	21.7	21.7	21.7	21.7	21.7	21.7
>2500	32.4	36.1	36.5	36.6	36.6	36.6	36.6	36.6
>2000	37.7	42.8	43.2	43.3	43.3	43.3	43.3	43.3
>1500	38.3	43.6	44.2	44.2	44.2	44.2	44.2	44.2
>1000	38.3	43.6	44.2	44.3	44.3	44.3	44.3	44.3
>500	38.4	43.7	44.3	44.4	44.4	44.4	44.4	44.4
TOTAL	519	591	599	600	600	600	600	600

TOTAL NUMBER OF OBS: 1352

PCT FREQ NH <5/8: 55.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
12.1	11.7	11.2	11.5	8.0	6.6	8.8	11.7	18.4	.0	1483

MARCH

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1855-1971AREA 0016 ESPERANCE BAY S  
35.45 120.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	*	*	*	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	*	*	*	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.1	.3	.1	*	.1	.1	*	*	.0	.0	.7	
	TOT %	.1	.3	.1	*	.1	.1	*	*	.0	.0	.7	
1<2	PCP	.0	.0	.0	.0	*	*	*	.0	.0	.0	.1	
	NO PCP	.0	.1	*	*	.1	.0	*	.0	.0	.0	.2	
	TOT %	.0	.1	*	*	.1	*	.1	.0	.0	.0	.4	
2<5	PCP	.0	.1	*	.1	.0	*	.1	.1	.0	.0	.4	
	NO PCP	*	.1	.1	*	.0	.1	.1	.1	.0	.0	.6	
	TOT %	*	.2	.1	.1	.0	.1	.2	.2	.0	.0	1.0	
5<10	PCP	.2	.4	.6	.2	.5	1.0	.7	.1	.0	.0	3.8	
	NO PCP	1.5	5.1	4.4	2.6	3.4	6.3	2.8	1.1	.0	.1	27.3	
	TOT %	1.8	5.5	5.0	2.9	3.8	7.3	3.5	1.2	.0	.1	31.2	
10+	PCP	.1	.2	.1	.2	.3	.4	.1	.1	.0	.0	1.3	
	NO PCP	3.4	12.4	11.9	4.7	9.4	12.5	7.9	2.4	.0	.5	65.3	
	TOT %	3.5	12.6	12.0	4.9	9.7	12.9	8.0	2.5	.0	.5	66.6	
TOT OBS													2104
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	*	*	*	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	*	*	*	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	*	.1	*	.0	.1	.1	*	*	.0	.0	.4	
	11-21	*	.1	*	*	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.1	*	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.3	.1	*	.1	.1	*	*	.0	.0	.6	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	*	*	*	.0	.0	.0	.1	
	11-21	.0	*	.0	.0	*	.0	.0	.0	.0	.0	.1	
	22+	.0	*	*	*	*	*	*	.0	.0	.0	.2	
	TOT %	.0	.1	*	*	.1	.1	.1	.0	.0	.0	.4	
2<5	0-3	.0	.0	.0	.0	.0	*	.0	*	.0	.0	.1	
	4-10	*	*	.1	*	.0	.1	.1	*	.0	.0	.4	
	11-21	.0	*	.1	.1	.0	.1	.1	.1	.0	.0	.1	
	22+	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	*	.2	.1	.1	.0	.3	.1	.2	.0	.0	1.0	
5<10	0-3	.2	.1	.1	.2	.2	.1	.1	.1	.0	.1	1.3	
	4-10	.7	1.1	2.2	1.6	1.7	2.5	1.0	.4	.0	.0	11.2	
	11-21	.4	3.1	2.2	.9	1.4	2.8	1.0	.5	.0	.0	12.3	
	22+	.3	1.2	.7	.1	.3	1.3	1.0	.2	.0	.0	5.1	
	TOT %	1.7	5.5	5.1	2.7	3.5	6.7	3.2	1.2	.0	.1	29.9	
10+	0-3	.1	.3	.4	.2	.6	.3	.4	.1	.0	.0	3.2	
	4-10	1.2	3.3	5.0	3.1	5.1	4.6	2.6	1.1	.0	.0	26.0	
	11-21	2.0	7.1	6.1	1.8	4.4	6.2	3.0	1.1	.0	.0	31.7	
	22+	.2	2.0	.8	.1	.4	1.7	1.7	.2	.0	.0	7.1	
	TOT %	3.5	12.7	12.4	5.2	10.6	12.8	7.7	2.5	.0	.6	68.0	
TOT OBS													2337
TOT PCT													100.0

## MARCH

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1855-1971

AREA 0016 ESPERANCE BAY S  
35.45 120.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	5500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.3	.0	1.4	9.2	13.3	16.9	4.4	3.3	.8	.6	50.3	49.7	360
06009	.0	.0	.8	5.9	12.6	11.3	5.4	1.9	.0	.8	38.6	61.4	373
12015	.0	.0	.6	5.4	15.2	11.3	5.1	.9	.3	.9	39.7	60.3	335
18021	.0	.3	.9	5.3	16.4	10.8	5.0	2.0	.6	.9	42.1	57.9	342
TOT	1	1	13	91	202	178	70	29	6	11	602	808	1410
PCT	.1	.1	.9	6.5	14.3	12.6	5.0	2.1	.4	.8	42.7	57.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	.7	.3	.6	33.3	64.9	667
06009	.2	.6	.6	.9	24.1	73.7	528
12015	.1	.4	.3	1.0	35.8	62.3	671
18021	.2	.7	.4	1.5	25.7	71.5	534
TOT	4	15	9	24	726	1622	2400
PCT	.2	.6	.4	1.0	30.3	67.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.3	2.0	11.9	40.9	47.2	345
06009	.0	1.1	8.4	32.6	59.0	356
12015	.0	.6	7.1	34.5	58.4	322
18021	.0	1.8	8.5	36.5	55.0	329
TOT	1	19	122	488	742	1352
PCT	.1	1.4	9.0	36.1	54.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.1	.0	.1	.2	.0	.0	6	.4
70/74	.0	.0	.1	.1	.7	1.3	1.4	.6	67	4.2
65/69	.0	.0	.1	.8	5.2	9.2	18.5	11.5	726	45.3
60/64	.0	.0	.3	3.0	12.6	14.9	9.2	5.4	729	45.4
55/59	.0	.0	.0	.4	1.1	1.5	.9	.7	76	4.7
TOTAL	0	0	9	71	316	434	483	291	1604	100.0
PCT	.0	.0	.6	4.4	19.7	27.1	30.1	18.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	*	.1	.1	.0	.0	.0	.1	.0	.0	.0
70/74	.3	.9	.9	.2	.2	.6	.7	.3	.0	.0
65/69	3.6	13.5	8.8	2.1	3.3	6.0	5.2	2.4	.0	.2
60/64	1.7	4.7	7.7	4.1	8.3	12.1	4.9	1.1	.0	.6
55/59	*	.1	.3	.5	1.9	1.5	.3	.1	.0	.0
TOTAL	5.8	19.3	17.9	7.0	13.7	20.3	11.3	3.9	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	75	72	70	65	59	57	55	64.7	953
06009	78	75	72	66	61	58	57	66.0	619
12015	73	70	68	64	59	57	55	63.7	891
18021	70	69	68	63	59	57	55	63.4	656
TOT	78	72	69	64	59	57	55	64.4	3119

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	5.2	20.8	24.7	31.2	18.1	78	442		
06009	.0	7.9	24.0	26.6	30.6	10.8	76	379		
12015	.0	3.5	16.6	29.7	30.8	19.4	79	428		
18021	.0	4.1	17.3	26.6	27.4	24.6	80	394		
TOT	0	84	322	442	494	301	78	1643		

## MARCH

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1855-1971

TABLE 17

AREA 0016 ESPERANCE BAY S  
35.45 120.7EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	NO FOG
11/13	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
9/10	.0	.0	.0	.0	.1	.1	.1	4	.0	.2
7/8	.0	.0	.0	.1	.3	.3	.0	12	.0	.6
6	.0	.0	.1	.2	.3	.1	.0	12	.1	.6
5	.0	.0	.0	.4	.8	.2	.0	25	.0	1.3
4	.0	.0	.1	.6	.5	.1	.0	24	.1	1.2
3	.0	.0	.1	2.2	1.4	.1	.0	69	.2	3.6
2	.0	.0	.5	4.3	2.2	.0	.0	129	.2	6.7
1	.0	.0	1.3	8.2	1.2	.0	.0	199	.3	10.5
0	.0	.2	3.6	9.4	.8	.1	.0	261	.4	13.6
-1	.0	.3	7.0	8.0	.2	.0	.0	286	.1	15.3
-2	.0	.7	8.4	3.9	.0	.0	.0	240	.2	12.8
-3	.0	1.6	7.8	2.5	.0	.0	.0	221	.1	11.9
-4	.0	1.8	5.4	.8	.0	.0	.0	148	.1	7.9
-5	.0	2.0	3.2	.5	.0	.0	.0	106	.0	5.7
-6	.1	1.6	1.0	.2	.0	.0	.0	51	.1	2.7
-7/-8	.1	1.3	1.0	.1	.0	.0	.0	48	.0	2.6
-9/-10	.0	.4	.3	.0	.0	.0	.0	12	.0	.6
-11/-13	.2	.2	.1	.0	.0	.0	.0	7	.0	.4
TOTAL	6	186	735	767	18	1	1	1855	31	1824
PCT	.3	10.0	39.6	41.3	7.7	1.0	.1	100.0	1.7	98.3

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.3	.0	.0	.0	.0	.5	.3	.9	.0	.0	.0	.0	1.2
1-2	.0	1.2	.4	.0	.0	.0	1.5	.0	1.8	1.0	.0	.0	.0	2.8
3-4	.0	.9	1.5	.0	.0	.0	2.5	.0	1.4	4.4	.3	.0	.0	6.0
5-6	.0	.1	1.5	.1	.0	.0	1.7	.0	.5	4.6	1.1	.0	.0	6.2
7	.0	.0	.5	.0	.0	.0	.5	.0	.0	2.5	.3	.0	.0	2.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0	.0	.6
10-11	.0	.0	.0	.4	.0	.0	.4	.0	.0	.1	.2	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.5	3.8	.5	.0	.0	7.0	.3	4.6	12.7	2.5	.1	.0	20.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.5	.0	.0	.0	.0	.7	.*	.4	.0	.0	.0	.0	.4
1-2	.0	2.8	1.0	.0	.0	.0	3.8	.0	1.7	.5	.0	.0	.0	2.2
3-4	.0	1.2	3.4	.1	.0	.0	4.8	.0	1.1	.9	.0	.0	.0	2.1
5-6	.0	1.0	4.7	.5	.0	.0	6.1	.0	.1	.4	.0	.0	.0	.5
7	.0	.0	1.0	.2	.0	.0	1.2	.0	.1	.1	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
12	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	5.6	10.1	1.0	.0	.0	17.0	.*	3.5	2.0	.0	.0	.0	5.5

PERIOD: (OVER-ALL) 1963-1971

MARCH

AREA 0016 ESPERANCE BAY S  
35.45 120.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW						
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.6	.0	.0	.1	.0	.0	.0	.1
1-2	.2	2.7	.7	.0	.0	.0	3.6	*	2.2	1.0	.0	.0	.0	3.2
3-4	.0	2.9	2.8	.1	.0	.0	5.8	.0	3.1	2.7	*	.0	.0	5.8
5-6	.0	.6	3.1	.0	.0	.0	3.7	.0	.6	5.1	*	.0	.0	5.8
7	.0	.1	1.1	.1	.0	.0	1.3	.0	.1	1.6	.9	.0	.0	2.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.5	.2	.0	.9
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.2	.0	.0	.5
13-16	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	*	.1	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	6.7	7.6	.4	.0	.0	15.2	*	6.0	11.2	1.9	.3	.0	19.5

HGT	W							NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.1	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.1	99.0
1-2	.0	1.1	.1	.0	.0	.0	1.2	.0	.9	*	.0	.0	.0	1.0	
3-4	.1	1.5	1.5	.0	.0	.0	3.0	*	*	.9	.0	.0	.0	1.0	
5-6	.0	.2	1.6	.4	.0	.0	2.2	.0	.2	.6	.1	.0	.0	.9	
7	.0	.1	1.0	.7	.1	.0	2.0	.0	.2	.2	.3	.0	.0	.7	
8-9	.0	.0	.0	.5	.1	.0	.6	.0	.0	.1	*	.0	.0	.2	
10-11	.0	.0	.2	.4	.0	.0	.6	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.2	.3	.0	.5	.0	.0	.1	.0	.0	.0	.1	
13-16	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	2.9	4.4	2.5	.5	.0	10.5	*	1.4	2.1	.6	.0	.0	4.1	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.3	2.9	.1	.0	.0	.0	6.4	718
1-2	.4	14.1	4.6	.0	.0	.0	19.1	
3-4	.3	12.0	17.7	.6	.0	.0	30.5	
5-6	.0	3.2	21.0	2.2	.0	.0	26.5	
7	.0	.7	7.8	2.5	.1	.0	11.1	
8-9	.0	.0	.6	1.4	.3	.0	2.2	
10-11	.0	.0	.6	1.5	.0	.0	2.1	
12	.0	.1	.4	.4	.4	.0	1.4	
13-16	.0	.0	.0	.6	.1	.0	.7	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.0	33.0	52.8	9.2	1.0	.0	100.0	

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	.8	2.9	6.5	4.0	2.4	.9	.6	.2	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	213	4
6-7	.0	.3	3.5	5.5	7.2	3.1	1.7	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	260	7
8-9	.1	.2	1.0	3.2	4.5	5.0	3.2	2.0	.7	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	232	8
10-11	.0	.1	.8	1.5	2.4	3.2	3.1	2.2	2.4	.1	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	186	9
12-13	.0	.0	.8	.4	.9	.7	1.8	.9	1.5	.1	.1	.2	.3	.0	.0	.0	.0	.0	.0	.0	87	10
>13	.0	.0	.0	.3	.5	1.0	1.0	.5	.4	.6	.3	.0	.2	.0	.0	.0	.0	.0	.0	.0	56	12
INDET	.5	1.5	1.5	1.4	1.8	1.0	.4	.6	.7	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	112	6
TOTAL	16	56	161	188	227	171	136	85	73	13	8	4	8	0	0	0	0	0	0	0	1146	7
PCT	1.4	4.9	14.0	16.4	19.8	14.9	11.9	7.4	6.4	1.1	.7	.3	.7	.0	.0	.0	.0	.0	.0	.0	100.0	



APRIL

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1857-1969AREA 0016 ESPERANCE BAY S  
35.4S 120.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	1.8	.8	1.3	.0	.0	.0	.0	4.0	.0	6.1	2.5	.0	.4	.0	87.6
NE	1.7	1.2	2.7	.0	.0	.0	.0	5.6	.9	2.2	1.2	.0	.2	.0	90.6
E	2.3	2.3	1.0	.0	.0	.0	.0	5.6	1.0	.0	2.8	.0	.2	.0	90.5
SE	2.4	3.6	1.2	.0	.0	.0	.0	7.1	2.2	.6	.3	.0	.0	.1	90.2
S	2.8	2.9	3.0	.0	.0	.0	.0	8.8	4.3	.6	.4	.0	.0	.3	85.7
SW	2.8	7.3	1.6	.0	.0	.0	.0	11.7	6.3	1.2	1.2	.0	.0	.0	79.8
W	3.7	13.2	1.9	.0	.0	.0	.1	18.9	6.6	1.9	.6	.0	.3	.0	72.6
NW	3.5	4.6	1.1	.0	.0	.0	.3	9.5	4.3	4.3	.5	.0	.0	.0	81.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	2.6	4.9	1.8	.0	.0	.0	*	9.4	3.4	1.8	1.2	.0	.1	*	84.4
TOT OBS:	2159														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	2.5	5.4	1.7	.0	.0	.0	.0	9.6	4.3	.5	2.2	.0	.3	.0	83.1
06009	2.2	4.7	.6	.0	.0	.0	.2	7.8	2.8	.0	.9	.2	.2	.0	88.1
12015	2.6	4.5	1.7	.0	.0	.0	.0	8.9	2.8	3.9	.9	.0	.0	.0	84.5
18021	2.7	5.1	3.2	.0	.0	.0	.0	11.0	3.4	3.0	1.1	.0	.0	.4	81.6
TOT PCT	2.5	4.9	1.8	.0	.0	.0	*	9.3	3.3	1.9	1.3	*	.1	.1	84.3
TOT OBS:	2216														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	3.6	4.1	.9	*	.0		9.0	12.6		12.3	10.8	6.4	8.3	6.2	8.6	8.8	10.6
NE	.4	4.9	8.3	2.2	.1	.0		15.9	14.3		16.0	15.3	14.7	14.4	14.1	16.3	19.2	19.1
E	.9	5.8	5.9	.8	.1	.0		13.4	11.7		10.2	12.6	14.9	12.2	16.8	15.7	11.3	13.0
SE	.6	3.5	2.1	.5	.2	.0		6.9	11.1		6.3	7.4	5.9	8.7	8.1	6.0	6.2	6.1
S	.9	5.4	4.2	1.2	.3	.0		12.1	12.4		12.0	9.4	13.2	11.1	13.1	13.1	13.2	9.8
SW	.7	5.9	6.5	3.3	.9	.1		17.4	15.4		16.7	17.8	17.3	21.3	17.5	16.8	18.6	13.8
W	.6	4.2	6.9	3.6	.9	.1		16.4	16.8		17.7	16.3	19.3	14.7	16.0	15.6	13.6	16.3
NW	.3	3.2	2.8	.7	.2	.0		7.1	13.0		8.2	8.1	7.2	6.1	5.4	4.4	8.2	9.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.9							1.9	.0		.6	2.3	1.1	3.1	2.8	3.6	.9	1.6
TOT OBS	203	1112	1244	404	81	7	3051		13.6		631	347	351	229	647	249	343	254
TOT PCT	6.7	36.4	40.8	13.2	2.7	.2		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	2.0	4.4	2.5	.2	.0		9.0	12.6	11.8	7.2	6.9	9.6	
NE	2.0	7.3	6.2	.5	.0		15.9	14.3	15.7	14.6	14.7	19.2	
E	3.5	6.7	2.8	.3	*		13.4	11.7	11.1	13.8	16.5	12.0	
SE	2.6	2.8	1.3	.2	*		6.9	11.1	6.7	7.0	7.5	6.2	
S	3.2	5.7	2.5	.7	*		12.1	12.4	11.1	12.4	13.1	11.8	
SW	3.3	6.9	4.8	2.2	.2		17.4	15.4	17.1	18.9	17.3	16.5	
W	2.3	6.3	5.4	2.0	.3		16.4	16.8	17.2	17.5	15.9	14.7	
NW	1.5	3.7	1.6	.4	*		7.1	13.0	8.1	6.8	5.2	8.8	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	1.9						1.9	.0	1.2	1.9	3.0	1.2	
TOT OBS	676	1334	822	200	19	3051		13.6	978	580	896	597	
TOT PCT	22.2	43.7	26.9	6.6	.6		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1857-1969

APRIL

AREA 0016 ESPERANCE RAY S  
35.45 120.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND DIR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	1.2	5.0	39.7	37.2	13.8	2.8	.3	13.5	100.0	978
06009	1.9	4.5	34.5	42.9	13.8	2.2	.2	13.9	100.0	980
12015	3.0	4.8	36.0	40.3	12.5	3.1	.2	13.5	100.0	896
18021	1.2	4.7	33.7	45.2	12.9	2.2	.2	13.7	100.0	897
TOT	.57	14.6	111.2	124.4	40.4	8.1	.7	13.6		3051
PCT	1.9	4.8	36.4	40.8	13.2	2.7	.2	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL OBS	MEAN CLOUD COVER
N	3.0	1.2	2.2	1.9		4.3
NE	4.7	2.8	5.0	3.8		4.6
E	2.5	1.8	4.9	3.0		5.3
SE	.6	.8	2.9	2.2		6.0
S	1.8	2.5	5.5	4.2		5.6
SW	2.5	3.0	8.0	3.8		5.4
W	2.8	3.3	6.9	4.0		5.2
NW	1.7	1.4	2.0	1.7		4.8
VAR	.0	.0	.0	.0		.0
CALM	.9	.1	.4	.1		2.7
TOT OBS	264	216	483	315	1278	5.1
TOT PCT	20.7	16.9	37.8	24.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)  
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8	TOTAL
149	299	599	999	1999	3999	4999	6499	7999		ANY HGT	OBS
.0	.0	.2	.3	1.3	.6	.2	.1	.2	.1	5.5	
.0	.0	.3	1.9	2.1	1.7	.4	.2	.0	.1	9.8	
.0	.0	.2	1.0	3.3	1.3	.5	.1	.2	.2	5.4	
.0	.0	.1	.8	1.3	1.3	.6	.1	.1	.0	2.4	
.2	.1	.4	1.6	2.7	1.6	.9	.2	.0	.3	6.0	
.1	.2	.4	1.5	4.6	1.7	1.3	.4	.0	.0	7.3	
.0	.0	.3	1.6	3.3	1.6	.9	.2	.0	.0	9.1	
.0	.0	.1	.6	1.0	.5	.3	.0	.1	.0	4.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.1	.2	.1	.0	.0	.0	.1	1.0	
.3	.3	2.5	11.8	25.3	13.3	6.4	1.4	.8	10	64.7	1278
.2	.2	2.0	9.2	19.8	10.4	5.0	1.1	.6	.8	50.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	> 10	> 5	> 2	> 1	> 1/2	> 1/4	> 50 YD	> 0
> 6500	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.4
> 5000	2.1	2.5	2.5	2.5	2.5	2.5	2.5	2.5
> 3500	6.4	7.4	7.4	7.5	7.5	7.5	7.5	7.5
> 2000	15.7	17.9	17.9	18.0	18.0	18.0	18.0	18.0
> 1000	32.2	37.0	37.4	37.5	37.5	37.5	37.5	37.5
> 600	38.6	45.7	46.5	46.6	46.6	46.6	46.6	46.6
> 300	39.4	47.4	48.4	48.6	48.6	48.6	48.6	48.6
> 150	39.5	47.6	48.7	48.8	48.8	48.8	48.8	48.8
> 0	39.5	47.8	48.9	49.0	49.0	49.0	49.0	49.0
TOTAL	512	620	634	636	636	636	636	636

TOTAL NUMBER OF OBS: 1297

PCT FREQ NH < 5/8: 51.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
10.0	8.4	11.7	9.8	9.6	6.5	11.1	12.8	20.0	.1	1423

APRIL

PERIOD: (PRIMARY) 1917-1969  
(OVER-ALL) 1857-1969AREA 0016 ESPERANCE RAY S  
35.45 120.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.1	.1	.1	.0	.0	.1	.0	.0	.0	.0	.0	.4
	TOT %	.1	.1	.1	.0	.0	.1	.0	.0	.0	.0	.0	.4
1<2	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.3
2<5	PCP	.0	.0	.1	.0	.0	.1	.2	.1	.0	.0	.0	.5
	NO PCP	.0	.2	.0	.0	.1	.2	.0	.0	.0	.0	.0	.6
	TOT %	.0	.3	.1	.0	.1	.3	.2	.1	.0	.0	.0	1.1
5<10	PCP	.3	.4	.5	.4	.6	1.2	2.1	.4	.0	.0	.0	5.9
	NO PCP	2.9	4.1	4.2	2.7	3.7	5.1	3.9	2.2	.0	.2	.2	29.1
	TOT %	3.2	4.5	4.7	3.1	4.3	6.4	6.0	2.6	.0	.2	.2	35.0
10+	PCP	.0	.4	.2	.1	.3	.6	.8	.2	.0	.0	.0	2.7
	NO PCP	5.3	10.3	9.0	4.5	7.4	9.5	9.1	4.4	.0	.8	.8	60.4
	TOT %	5.3	10.8	9.2	4.6	7.7	10.2	9.9	4.6	.0	.8	.8	63.1
TOT OBS		2159											
TOT PCT		8.8	15.6	14.1	7.8	12.2	17.0	16.1	7.3	.0	1.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.1	.0	.0	.1	.0	.0	.0	.0	.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.3	
	11-21	.0	.1	.1	.0	.0	.1	.1	.0	.0	.0	.5	
	22+	.0	.1	.0	.0	.1	.1	.1	.1	.0	.0	.4	
	TOT %	.0	.3	.2	.0	.1	.3	.2	.1	.0	.0	1.2	
5<10	0-3	.1	.3	.4	.3	.1	.2	.1	.1	.0	.2	1.8	
	4-10	1.5	1.6	1.5	1.1	1.6	2.2	1.2	1.3	.0	.0	12.0	
	11-21	1.0	1.7	2.1	1.0	1.4	1.7	2.1	.8	.0	.0	11.8	
	22+	.4	.6	.4	.5	1.0	1.8	2.2	.3	.0	.0	7.1	
	TOT %	3.0	4.3	4.4	2.9	4.1	5.9	5.6	2.4	.0	.2	32.7	
10+	0-3	.2	.2	.4	.4	.7	.4	.5	.1	.0	1.2	4.0	
	4-10	2.0	2.9	4.3	2.9	3.4	3.5	3.0	2.2	.0	.0	24.8	
	11-21	2.7	6.9	4.1	1.5	2.5	4.2	4.4	1.9	.0	.0	28.1	
	22+	.5	1.6	.6	.1	.4	2.3	2.3	.3	.0	.0	8.2	
	TOT %	5.4	11.5	9.6	4.8	7.5	10.4	10.2	4.6	.0	1.2	65.2	
TOT OBS		2352											
TOT PCT		8.6	16.2	14.3	7.7	11.7	16.9	16.0	7.1	.0	1.5	100.0	



APRIL

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1857-1969AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.3	.9	2.4	10.2	23.7	12.0	3.9	1.5	.6	.6	56.0	44.0	334
06009	.0	.0	2.3	8.5	17.6	10.0	4.7	.6	.6	.9	45.2	54.8	341
12015	.0	.0	1.8	7.9	16.4	8.8	5.0	.9	.6	.3	41.5	58.5	342
18021	.6	.0	.9	8.9	17.8	10.2	5.8	1.5	.6	1.2	47.7	52.3	325
TOT	3	3	25	119	253	137	65	15	8	10	638	704	1342
PCT	.2	.2	1.6	8.9	18.9	10.2	4.8	1.1	.6	.7	47.5	52.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.9	.4	1.2	34.8	62.7	695
06009	.2	.2	.4	1.2	26.6	71.4	493
12015	.0	.4	.4	1.3	37.4	60.5	711
18021	.2	.4	.4	1.4	30.6	67.1	510
TOT	2	12	10	30	795	1560	2409
PCT	.1	.5	.4	1.2	33.0	64.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00003	.3	3.7	14.7	42.8	42.5	327
06009	.0	2.4	11.9	35.5	52.6	327
12015	.0	1.8	10.8	32.5	56.6	332
18021	.6	1.6	12.2	37.3	50.5	311
TOT	3	31	161	480	656	1297
PCT	.2	2.4	12.4	37.0	50.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
70/74	.0	.0	.1	.0	.3	.3	.6	.0	20	1.2
65/69	.0	.0	.1	.7	1.6	6.5	11.6	6.3	431	26.8
60/64	.0	.0	.2	2.4	11.9	14.3	16.0	8.5	856	53.3
55/59	.0	.0	.1	1.3	3.7	5.1	5.5	1.8	281	17.5
50/54	.0	.0	.0	.1	.2	.2	.4	.2	18	1.1
TOTAL	0	0	7	72	285	424	547	272	1607	100.0
PCT	.0	.0	.4	4.5	17.7	26.4	34.0	16.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	*	*	.0	.0	.0
.3	.2	.1	.0	.1	.1	.3	.2	.0	.1
4.6	7.2	3.5	.8	.9	1.7	3.9	4.0	.0	.4
3.4	7.5	8.0	4.2	7.5	9.3	9.6	3.0	.0	.7
.2	.5	.9	1.3	4.6	5.9	3.4	.4	.0	.2
.0	.0	.0	.0	.3	.4	.4	.1	.0	.0
8.5	15.4	12.4	6.3	13.4	17.4	17.5	7.7	.0	1.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	79	72	69	63	57	55	51	63.0	972
06009	76	73	69	64	58	55	51	63.7	587
12015	73	70	67	62	57	54	53	62.3	911
18021	71	69	67	62	56	53	51	61.8	611
TOT	79	71	68	63	57	54	51	62.7	3081

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	4.6	18.1	25.7	34.5	17.1	79	432		
06009	.0	8.5	21.8	27.5	30.6	11.6	76	363		
12015	.0	3.4	16.9	26.8	34.7	18.2	79	467		
18021	.0	3.9	13.9	25.4	36.1	20.7	80	382		
TOT	0	82	289	433	560	280	79	1644		

APRIL

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1857-1969

TABLE 17

AREA 0016 ESPERANCE BAY S  
35.45 120.6EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT FOG	W FOG	WD FOG
11/13	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
9/10	.0	.0	.0	.0	.1	.1	.0	2	.0	.1
7/8	.0	.0	.2	.1	.0	.1	.2	10	.0	.6
6	.0	.0	.0	.1	.1	.2	.0	6	.0	.3
5	.0	.0	.0	.0	.4	.2	.0	11	.0	.6
4	.0	.0	.1	.2	1.0	.3	.0	28	.0	1.6
3	.0	.0	.1	.6	2.3	.6	.0	63	.1	3.4
2	.0	.0	.1	1.3	4.3	.8	.1	120	.1	6.6
1	.0	.1	.3	3.8	6.3	.2	.0	194	.1	10.7
0	.0	.0	.7	7.6	5.6	.3	.0	254	.2	13.9
-1	.0	.1	1.4	8.6	2.8	.2	.0	235	.3	12.7
-2	.0	.0	2.6	8.1	1.6	.1	.0	223	.2	12.2
-3	.0	.2	3.7	6.4	1.0	.0	.0	202	.2	11.1
-4	.0	.2	4.5	3.2	.4	.1	.0	150	.1	8.2
-5	.0	.4	3.6	2.1	.2	.1	.0	115	.0	6.4
-6	.0	.4	2.6	1.2	.1	.0	.0	79	.1	4.3
-7/-8	.0	.9	2.3	1.0	.0	.0	.0	76	.1	4.1
-9/-10	.0	.4	.6	.2	.0	.0	.0	21	.0	1.2
-11/-13	.1	.3	.0	.0	.0	.0	.0	8	.0	.4
-14/-16	.1	.1	.0	.0	.0	.0	.0	2	.0	.1
TOTAL	3	56	409	798	474	54	6	1800	28	1772
PCT	.2	3.1	22.7	44.3	26.3	3.0	.3	100.0	1.6	98.4

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.7	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.8	.7	.0	.0	.0	1.4	.0	1.7	.5	.0	.0	.0	2.2
3-4	.0	.3	.9	.1	.0	.0	1.4	.0	.9	3.9	.0	.0	.0	4.9
5-6	.0	.3	1.3	.1	.0	.0	1.7	.0	.3	3.5	.4	.0	.0	4.2
7	.0	.0	.9	.1	.0	.0	1.0	.0	.0	2.6	.6	.1	.0	3.3
8-9	.0	.0	.3	.1	.0	.0	.4	.0	.0	.8	1.0	.0	.0	1.7
10-11	.0	.0	.0	.1	.1	.0	.2	.0	.0	.0	.4	.0	.0	.5
12	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.0	4.0	.7	.1	.0	6.8	.1	2.9	11.3	2.9	.1	.0	17.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
41	.0	.4	.1	.0	.0	.0	.5	.0	.2	.0	.0	.0	.0	.2
1-2	.1	2.5	.5	.0	.0	.0	3.2	.0	2.0	.0	.0	.0	.0	2.0
3-4	.0	1.5	2.0	.0	.0	.0	3.5	.0	.9	1.2	.0	.0	.0	2.1
5-6	.0	.2	2.9	.2	.0	.0	3.4	.0	.1	.9	.2	.0	.0	1.2
7	.0	.0	1.2	.4	.0	.0	1.6	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.3	.3	.0	.0	.6	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.1	.1	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	4.6	7.3	1.1	.1	.0	13.2	.0	3.2	2.4	.2	.0	.0	5.8

PERIOD: (OVER-ALL) 1963-1969

APRIL

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.4	.0	.0	.0	.0	.8	.2	.5	.1	.0	.0	.0	.8
1-2	.5	3.3	.1	.0	.0	.0	3.9	.1	2.8	.4	.0	.0	.0	3.3
3-4	.0	1.6	2.0	.1	.0	.0	3.6	.0	1.6	2.7	.3	.0	.0	4.6
5-6	.0	.4	2.1	.2	.0	.0	2.6	.0	.1	2.5	.5	.1	.0	3.3
7	.0	.0	.7	.0	.0	.0	.7	.0	.0	.5	.7	.0	.0	1.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.9	.0	.0	1.8
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1	.4	.0	.6
12	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.3	.0	.0	.3
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	.0	.9
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.2
20-22	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	5.7	4.9	1.0	.0	.0	12.5	.3	5.0	7.1	3.4	1.5	.0	17.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.5	.0	.0	.0	.0	.6	.1	.1	.0	.0	.0	.0	.2	
1-2	.0	2.2	.8	.0	.0	.0	3.0	.1	2.0	.0	.0	.0	.0	2.2	
3-4	.0	1.2	1.9	.3	.0	.0	3.4	.0	.8	1.8	.0	.0	.0	2.7	
5-6	.0	.4	2.7	1.1	.0	.0	4.2	.0	.2	.6	.0	.0	.0	.8	
7	.1	.3	1.7	.8	.0	.0	2.9	.0	.0	.4	.4	.0	.0	.9	
8-9	.0	.0	.6	1.1	.0	.0	1.7	.1	.0	.0	.0	.1	.0	.3	
10-11	.0	.0	.0	.4	.5	.0	.9	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.1	.1	.6	.0	.9	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.1	.1	.1	.1	.0	.4	.0	.0	.0	.0	.1	.0	.2	
20-22	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	4.6	7.9	4.1	1.5	.0	18.3	.3	3.2	2.9	.4	.3	.0	7.3	98.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	2.5	2.7	.3	.0	.0	.0	5.5	
1-2	1.0	17.1	3.1	.0	.0	.0	21.2	
3-4	.1	8.9	16.4	.8	.0	.0	26.2	
5-6	.0	2.0	16.4	2.9	.1	.0	21.4	
7	.1	.3	8.1	3.0	.1	.0	11.6	
8-9	.1	.0	3.0	3.4	.1	.0	6.7	
10-11	.0	.0	.1	1.4	1.1	.0	2.6	
12	.0	.0	.0	1.4	.0	.0	1.4	
13-16	.0	.0	.1	.5	1.2	.0	1.9	
17-19	.0	.1	.1	.1	.4	.0	.8	
20-22	.0	.0	.0	.1	.1	.0	.3	
23-25	.0	.0	.0	.0	.4	.0	.4	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.8	31.1	47.7	13.7	3.7	.0	100.0	732

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	4.4	5.6	2.6	1.6	1.1	.1	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	180	4
6-7	.0	.1	2.6	5.3	6.9	3.9	1.9	.8	.9	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	240	7
8-9	.0	.0	1.1	4.6	4.6	5.5	2.7	2.0	1.4	1.0	.9	.3	.1	.0	.0	.0	.0	.0	.0	257	9
10-11	.0	.0	.7	1.2	2.8	2.8	2.6	1.4	2.6	.4	.6	.1	.5	.0	.0	.0	.0	.0	.0	166	10
12-13	.0	.0	.4	.3	.8	.9	1.3	.5	1.4	.1	.2	.1	.5	.0	.0	.0	.0	.0	.0	97	12
>13	.0	.0	.0	.1	.3	.9	.7	.6	1.1	.6	.2	.2	.2	.0	.0	.0	.0	.0	.0	51	13
INDFT	.3	.7	.9	1.0	2.8	1.2	.4	.4	.6	.1	.3	.3	.1	.0	.0	.0	.0	.0	.0	96	8
TOTAL	14	55	119	160	210	173	103	61	86	28	23	11	14	0	0	0	0	0	0	1057	8
PCT	1.3	5.2	11.3	15.1	19.9	16.4	9.7	5.8	8.1	2.6	2.2	1.0	1.3	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1914-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0016 ESPERANCA BAY S  
35.45 120.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
N	4.5	3.1	1.5	.0	.0	.0	.0	9.2	1.2	2.2	.7	.0	.8	.0	86.6		
NE	2.5	5.6	1.0	.0	.0	.0	.0	9.1	1.4	1.9	.4	.0	.6	.0	87.2		
E	4.7	2.8	2.8	.0	.0	.0	.0	10.3	2.8	4.1	.0	.0	.0	.0	82.7		
SE	4.7	4.2	1.6	.0	.0	.0	1.1	11.6	.3	.5	.0	.0	.0	.0	87.6		
S	1.2	5.1	1.6	.0	.0	.0	.0	7.9	2.5	.4	.0	.0	.0	.0	88.8		
SW	2.1	8.1	1.3	.0	.0	.0	.0	11.5	3.7	.4	.1	.0	.0	.0	84.2		
W	6.5	8.7	1.0	.0	.0	.0	.0	10.2	4.9	1.6	.1	.0	.0	.0	77.6		
NW	3.8	5.0	2.4	.0	.0	.0	.0	11.3	3.3	2.2	.6	.0	.3	.0	82.8		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	2.6	.0	.0	.0	.0	.0	.0	2.6	5.3	2.6	2.6	.0	.0	.0	86.8		
TOT PCT	3.8	6.0	1.5	.0	.0	.0	*	11.3	3.0	1.5	.3	.0	.2	*	83.8		
TOT OBS:	2214																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
00003	2.9	6.5	1.8	.0	.0	.0	.0	11.2	2.9	.5	.3	.0	.3	.2	84.7		
06009	3.5	7.6	1.2	.0	.0	.0	.0	12.4	3.1	.0	.2	.0	.2	.0	84.1		
12015	4.9	6.8	1.1	.0	.0	.0	.2	12.9	2.0	4.2	.3	.0	.3	.0	81.3		
18021	3.9	2.7	2.1	.0	.0	.0	.0	8.7	4.3	1.2	.4	.0	.2	.0	85.1		
TOT PCT	3.8	6.0	1.5	.0	.0	.0	*	11.4	3.0	1.6	.3	.0	.3	*	83.7		
TOT OBS:	2267																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.6	4.7	6.4	2.1	.2	.0		13.9	14.2		15.4	14.0	12.9	15.6	12.2	15.4	10.6	17.2
NE	.6	4.2	5.2	1.7	.1	.0		11.8	13.7		10.0	12.6	8.2	17.4	11.7	16.9	9.4	15.5
E	.3	1.9	2.5	.2	.2	.0		5.2	12.7		3.4	6.2	4.1	3.5	6.4	9.0	4.3	6.4
SE	.3	2.0	2.0	.6	.1	.0		5.0	12.8		5.6	5.8	3.5	5.2	5.0	5.1	4.3	5.1
S	.4	3.3	3.8	1.3	.1	*		9.0	13.7		7.9	6.9	11.0	6.8	10.9	9.3	10.7	5.3
SW	.4	4.3	5.3	4.2	.9	.1		18.3	17.3		19.5	16.4	19.1	15.4	20.0	11.6	22.4	14.1
W	.6	5.0	8.3	9.1	1.1	.1		20.2	17.3		20.3	20.4	22.8	22.7	19.4	15.8	20.7	19.0
NW	.6	4.8	6.6	1.8	.4	*		14.4	14.3		15.6	15.5	18.5	12.6	11.0	14.0	14.3	15.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.2							2.2	.0		1.9	2.2	.0	.9	3.3	2.8	3.4	2.3
TOT DBS	179	885	1274	500	88	7	2933		14.8		620	313	367	217	629	214	358	215
TOT PCT	6.1	30.2	43.4	17.0	3.0	.2		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	1.8	7.0	4.2	.9	.0		13.9	14.2	15.2	13.9	13.0	13.1	
NE	2.2	5.3	3.5	.7	.0		11.8	13.7	10.9	11.6	13.0	11.6	
E	1.2	2.6	1.1	.2	.1		5.2	12.7	4.4	3.9	7.1	5.1	
SE	1.1	2.4	1.2	.3	.0		5.0	12.8	5.7	4.1	5.0	4.6	
S	1.7	4.4	2.2	.7	.1		9.0	13.7	7.3	9.5	10.5	8.7	
SW	2.1	7.3	6.1	2.4	.4		18.3	17.3	18.4	17.7	17.9	19.3	
W	2.7	7.2	7.3	2.7	.4		20.2	17.3	20.3	22.7	18.5	20.0	
NW	2.1	7.2	3.8	1.1	.1		14.4	14.3	15.6	16.3	11.8	14.6	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	2.2						2.2	.0	2.0	.3	3.2	3.0	
TOT DBS	503	1272	863	264	31	2933		14.8	933	584	843	573	
TOT PCT	17.1	43.4	29.4	9.0	1.1		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1914-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	2.0	4.6	28.2	45.4	15.8	3.8	.2	15.0	100.0	933
06009	.3	2.7	26.9	44.0	21.9	3.6	.3	16.5	100.0	584
12015	3.2	4.0	33.8	39.6	16.6	2.6	.1	14.1	100.0	843
18021	3.0	3.7	31.4	45.2	14.8	1.7	.2	14.1	100.0	573
TOT	.5	114	885	1274	900	88	7	14.8		2933
PCT	2.2	3.9	30.2	43.4	17.0	3.0	.2	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	4.2	1.6	3.8	3.5		4.6
NE	3.7	1.1	2.2	1.4		4.0
E	.8	1.1	1.1	1.5		5.2
SE	.9	1.0	1.7	.8		4.9
S	.9	1.6	5.3	2.7		5.8
SW	2.1	5.1	10.3	3.4		5.3
W	4.5	5.1	9.3	2.9		4.7
NW	4.0	2.5	5.3	2.5		4.6
VAR	.0	.0	.0	.0		.0
CALM	.7	.2	.3	.1		2.8
TOT OBS	285	250	513	255	1303	4.9
TOT PCT	21.9	19.2	39.4	19.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.1	.6	1.8	.8	.6	.2	.2	.3	8.5	
.0	.0	.2	.2	.9	.7	.5	.0	.0	.2	6.1	
.0	.0	.1	.3	.8	.7	.3	.1	.0	.0	2.3	
.0	.0	.0	.3	.8	.2	.4	.1	*	.0	2.5	
.0	.0	.0	1.0	2.1	1.4	1.3	.5	*	.0	4.1	
.0	.0	.2	2.1	5.8	2.2	1.3	.2	.0	.1	9.4	
.1	.1	.7	2.8	3.2	1.3	.5	.0	.0	.1	13.1	
.0	.0	.0	1.2	1.8	1.2	.7	.1	.1	.2	9.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.1	.2	.2	.0	.0	.0	.8	
.1	1	16	110	226	116	74	15	4	12	728	1303
.1	.1	1.2	8.4	17.3	8.9	5.7	1.2	.3	.9	55.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >6500	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
OR >5000	2.3	2.4	2.4	2.4	2.4	2.4	2.4	2.4
OR >3500	7.2	8.0	8.1	8.1	8.1	8.1	8.1	8.1
OR >2000	14.6	16.7	17.0	17.1	17.1	17.1	17.1	17.1
OR >1000	28.6	33.4	34.6	34.6	34.6	34.6	34.6	34.6
OR >600	34.7	41.3	42.9	43.0	43.0	43.0	43.0	43.0
OR >300	35.3	42.3	44.1	44.2	44.2	44.3	44.3	44.3
OR >150	35.3	42.4	44.1	44.3	44.3	44.4	44.4	44.4
OR >0	35.3	42.5	44.2	44.4	44.4	44.4	44.4	44.4
TOTAL	469	564	587	589	589	590	590	590

TOTAL NUMBER OF OBS: 1328

PCT FREQ NH <5/8: 55.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	TOTAL OBS
	10.2	10.8	11.1	12.5	10.5	9.7	9.4	11.2	14.5	1483



PERIOD: (PRIMARY) 1914-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	PCP	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*		
	NO PCP	.0	.0	.0	.0	.0	*	*	.0	.0	.0	*	.1	
	TOT %	.0	.0	.0	.0	.0	*	.1	.0	.0	.0	*	.1	
1/2<1	PCP	.0	*	.0	*	.0	.1	.0	.0	.0	.0	.2		
	NO PCP	.1	.0	.0	.0	.0	.0	*	.1	.0	.0	.2		
	TOT %	.1	*	.0	*	.0	.1	*	.1	.0	.0	.4		
1<2	PCP	*	.0	.0	.0	*	.1	*	*	.0	.0	.3		
	NO PCP	*	.1	.0	.0	*	*	.0	*	.0	.0	.2		
	TOT %	.1	.1	.0	.0	.1	.2	*	.1	.0	.0	.5		
2<5	PCP	.1	*	*	.0	*	.2	.2	.4	.0	.0	.9		
	NO PCP	.1	.1	.0	.1	.2	.2	.2	*	.0	.0	.8		
	TOT %	.2	.1	*	.1	.2	.4	.4	.4	.0	.0	1.8		
5<10	PCP	.7	.7	.4	.3	.4	.9	2.0	.7	.0	.0	6.2		
	NO PCP	3.6	3.1	1.2	1.1	2.4	5.0	4.3	4.0	.0	.2	25.1		
	TOT %	4.3	3.9	1.7	1.4	2.8	6.0	6.4	4.7	.0	.2	31.3		
10+	PCP	.4	.2	.0	.2	.3	.9	1.1	.6	.0	*	3.7		
	NO PCP	8.4	6.4	2.7	2.6	6.3	12.0	13.0	9.3	.0	1.4	62.2		
	TOT %	8.8	6.6	2.7	2.8	6.6	13.0	14.1	10.0	.0	1.4	65.9		
TOT OBS														2212
TOT PCT		13.4	10.7	4.4	4.3	9.7	19.6	21.0	15.3	.0	1.7	100.0		

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	0-3	.0	.0	.0	.0	.0	*	*	.0	.0	*	.1		
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	22+	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*		
	TOT %	.0	.0	.0	.0	.0	*	.1	.0	.0	*	.1		
1/2<1	0-3	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.1		
	4-10	.0	.0	.0	*	.0	.0	.0	*	.0	.0	.1		
	11-21	.0	.0	.0	.0	.0	.1	*	*	.0	.0	.2		
	22+	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	*		
	TOT %	.1	*	.0	*	.0	.1	*	.1	.0	.0	.4		
1<2	0-3	*	.1	.0	*	*	.1	.0	*	.0	.3	.7		
	4-10	*	*	*	.0	.1	.1	*	.0	.0	.0	.3		
	11-21	*	.1	.0	.0	.0	*	.1	.1	.0	.0	.3		
	22+	*	.0	.0	.0	.1	.1	.1	.0	.0	.0	.3		
	TOT %	.1	.2	*	*	.2	.4	.2	.1	.0	.3	1.6		
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	4-10	.0	.0	.0	*	.0	*	.0	*	.0	.0	.1		
	11-21	.1	.1	*	.0	.1	.1	*	.2	.0	.0	.5		
	22+	.1	*	.0	*	.1	.3	.4	.2	.0	.0	1.2		
	TOT %	.2	.1	*	.1	.2	.4	.4	.4	.0	.0	1.8		
5<10	0-3	.2	.2	.1	*	.1	.1	.2	.1	.0	.2	1.3		
	4-10	1.1	.8	.5	.4	.8	.6	.9	1.1	.0	.0	6.1		
	11-21	2.0	2.0	.8	.6	1.2	2.6	2.5	2.4	.0	.0	14.1		
	22+	.8	.6	.2	.3	.5	2.3	2.5	.7	.0	.0	7.9		
	TOT %	4.0	3.6	1.5	1.3	2.6	5.6	6.0	4.4	.0	.2	29.4		
10+	0-3	.3	.2	*	.2	.3	.2	.3	.6	.0	1.8	3.8		
	4-10	3.4	3.1	1.2	1.2	2.9	3.7	4.1	3.8	.0	.0	23.5		
	11-21	4.3	3.4	1.6	1.1	2.6	5.5	5.6	4.3	.0	.0	28.3		
	22+	1.4	.8	.0	.1	.6	3.2	3.8	1.3	.0	.0	11.1		
	TOT %	9.4	7.6	2.9	2.6	6.4	12.5	13.7	9.9	.0	1.8	66.7		
TOT OBS														2390
TOT PCT		13.8	11.5	4.5	4.0	9.4	19.1	20.4	14.9	.0	2.3	100.0		

PERIOD: (PRIMARY) 1914-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0016 ESPERANCE RAY S  
35.45 120.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	1.4	7.2	19.6	11.3	5.8	1.4	.0	1.1	47.8	52.2	362
06009	.0	.0	2.3	9.1	17.6	9.1	5.1	1.7	.3	1.4	46.5	53.5	353
12015	.0	.3	.8	7.2	15.8	6.9	5.5	.6	.6	.6	38.2	61.8	361
18021	.3	.0	.3	8.2	13.0	6.6	4.8	.9	.3	.3	34.7	65.3	331
TOT	1	1	17	111	233	120	75	16	4	12	590	817	1407
PCT	.1	.1	1.2	7.9	16.6	8.5	5.3	1.1	.3	.9	41.9	58.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	.6	.8	1.4	28.3	68.8	714
06009	.2	.2	.4	1.4	26.7	71.2	510
12015	.1	.3	4.1	2.5	33.6	59.4	711
18021	.2	.4	.6	1.6	28.3	68.9	508
TOT	4	9	40	43	721	1626	2443
PCT	.2	.4	1.6	1.8	29.5	66.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	1.5	9.9	40.9	49.1	342
06009	.0	2.4	13.1	35.9	51.0	337
12015	.0	1.2	11.3	30.1	58.6	336
18021	.3	1.0	11.8	25.9	62.3	313
TOT	1	20	153	443	732	1328
PCT	.1	1.5	11.5	33.4	55.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.1	.3	.1	.2	12	.7
65/69	.0	.0	.0	.2	1.0	4.1	4.6	3.0	225	12.9
60/64	.0	.1	.1	1.0	8.7	16.3	16.5	6.4	855	49.1
55/59	.0	.0	.1	1.8	7.3	10.8	9.0	3.8	572	32.8
50/54	.0	.0	.0	.4	1.8	.9	.9	.3	76	4.4
45/49	.0	.0	.0	.0	.0	.1	.1	.1	2	.1
TOTAL	0	1	3	60	329	565	545	239	1742	100.0
PCT	.0	.1	.2	3.4	18.9	32.4	31.3	13.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
70/74	.1	.1	.0	.0	.0	.0	.1	.1	.0	.2
65/69	3.7	2.3	.4	.1	.2	.3	1.7	3.4	.0	.8
60/64	7.0	6.7	2.7	1.5	2.1	7.6	12.1	8.4	.0	1.0
55/59	1.5	1.9	1.4	1.9	6.3	10.8	6.0	2.0	.0	.5
50/54	.0	.0	.0	.3	1.9	1.6	.4	.0	.0	.1
45/49	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0
TOTAL	12.3	11.0	4.4	3.8	10.5	20.5	21.0	14.0	.0	2.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	72	69	66	61	55	52	49	61.0	920
06009	72	69	67	62	56	53	49	61.5	580
12015	71	69	66	61	55	52	50	60.6	853
18021	69	67	65	60	54	52	49	59.9	580
TOT	72	69	66	61	55	52	49	60.8	2933

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	2.8	16.1	29.8	34.8	16.5	79	503
06009	.0	4.4	23.3	37.6	25.1	9.6	76	386
12015	.0	3.2	17.0	34.9	29.9	15.0	79	505
18021	.0	4.7	20.3	28.1	35.1	11.9	78	385
TOT	0	65	335	579	558	242	78	1779

MAY

PERIOD: (PRIMARY) 1914-1972  
(OVER-ALL) 1857-1972AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WO FOG
11/13	.0	.0	.0	.1	.0	.1	2	.0	.1
7/8	.0	.0	.0	.0	.2	.0	3	.0	.2
6	.0	.0	.0	.0	.3	.1	7	.0	.4
5	.0	.0	.0	.2	.5	.1	14	.0	.8
4	.0	.0	.1	.7	.6	.2	28	.0	1.5
3	.0	.1	.1	1.2	1.6	.3	59	.0	3.2
2	.0	.0	.4	3.3	1.6	.2	101	.1	5.4
1	.0	.1	1.0	5.4	1.8	.1	156	.2	8.3
0	.0	.1	2.2	7.3	1.6	.0	208	.1	11.2
-1	.0	.2	4.6	6.5	1.3	.1	236	.0	12.7
-2	.0	.4	5.1	4.9	.9	.0	207	.0	11.2
-3	.0	1.1	7.1	4.6	.4	.0	246	.1	13.2
-4	.0	.9	5.6	2.4	.1	.0	165	.0	8.9
-5	.1	1.4	4.9	1.5	.1	.0	146	.1	7.8
-6	.3	1.9	2.2	.9	.1	.0	100	.0	5.4
-7/-8	.1	2.3	2.6	.5	.1	.0	103	.0	5.6
-9/-10	.5	1.2	.9	.2	.0	.0	53	.0	2.9
-11/-13	.2	.3	.3	.1	.0	.0	16	.0	.9
-14/-16	.0	.1	.1	.0	.0	.0	3	.0	.2
TOTAL	22	185	736	205	19	1853	7	1846	
PCT	1.2	10.0	37.0	39.7	11.1	1.0	100.0	.4	99.6

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

N								NE							
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	1.7	.6	.0	.0	.0	2.3	.0	1.5	.7	.0	.0	.0	2.2	
3-4	.0	1.4	2.6	.3	.0	.0	4.3	.0	1.1	1.6	.2	.0	.0	2.9	
5-6	.0	.7	2.5	.0	.0	.0	3.2	.0	.0	1.2	.3	.0	.0	1.4	
7	.0	.0	1.4	.3	.0	.0	1.7	.0	.0	.3	.3	.0	.0	.6	
8-9	.0	.0	.0	.3	.1	.0	.4	.0	.0	.0	.5	.0	.0	.5	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	3.9	7.1	1.1	.1	.0	12.2	.0	2.6	3.8	1.2	.0	.0	7.6	

E								SE							
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
1-2	.1	.8	.1	.0	.0	.0	1.0	.3	.9	.3	.0	.0	.0	1.4	
3-4	.0	.6	1.0	.0	.0	.0	1.6	.0	.2	.2	.0	.0	.0	.4	
5-6	.0	.0	.5	.0	.0	.0	.5	.0	.0	.5	.0	.0	.0	.5	
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	1.4	1.8	.0	.0	.0	3.3	.4	1.1	1.2	.0	.0	.0	2.7	

PERIOD: (OVER-ALL) 1963-1972

MAY

AREA 0016, ESPERANCE BAY S  
35.45 120.0E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.4	.3	.0	.0	.0	.0	.7	.0	.5	.0	.0	.0	.0	.0	.5	.0	.2
1-2	.4	2.2	.6	.0	.0	.0	3.1	.3	2.5	1.0	.0	.0	.0	.0	3.8	.0	2.9
3-4	.0	1.3	.8	.0	.0	.0	2.1	.0	1.0	2.1	.5	.0	.0	.0	3.6	.0	5.5
5-6	.0	.0	.6	.1	.0	.0	.8	.0	.6	3.4	1.1	.0	.0	.0	5.1	.0	4.4
7	.0	.0	.8	.2	.0	.0	1.1	.0	.2	2.3	1.3	.4	.3	.0	4.6	.0	1.5
8-9	.0	.0	.1	.4	.0	.0	.5	.0	.0	.6	1.7	.3	.0	.0	2.6	.0	.3
10-11	.0	.0	.0	.1	.0	.0	.2	.0	.0	.5	1.1	.1	.0	.0	1.7	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.3	.0	.0	.4	.0	.1
13-16	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	.3	.0	.0	.0	.4	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.2	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	3.9	3.1	.9	.0	.0	8.7	.3	4.9	10.1	6.3	1.3	.3	.3	23.2		

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.0	.0
1-2	.0	2.5	1.3	.0	.0	.0	3.8	.0	2.3	.7	.0	.0	.0	.0	2.9	.0	5.5
3-4	.0	2.7	2.8	.7	.0	.0	6.3	.0	2.9	2.3	.3	.0	.0	.0	5.5	.0	4.4
5-6	.0	.3	3.6	2.0	.0	.0	5.9	.0	.4	3.3	.7	.0	.0	.0	4.4	.0	1.5
7	.0	.0	1.6	3.0	.4	.1	5.1	.0	.1	1.2	.1	.0	.0	.0	2.3	.0	.3
8-9	.0	.0	.9	.5	.0	.0	1.4	.0	.1	.0	.2	.0	.0	.0	.5	.0	.1
10-11	.0	.1	.4	.6	.3	.0	1.3	.0	.0	.1	.3	.1	.0	.0	.5	.0	.0
12	.0	.0	.1	.4	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.1	.0	.0	.0	.1	.0	.0
17-19	.0	.1	.0	.1	.6	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.7	10.8	7.7	1.2	.1	25.5	.0	6.0	7.6	1.7	.2	.0	.0	15.5		98.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.5	1.4	.0	.0	.0	.0	3.9	
1-2	1.3	14.0	5.2	.0	.0	.0	20.5	
3-4	.0	11.2	13.2	2.0	.0	.0	26.5	
5-6	.0	2.0	15.4	4.1	.0	.0	21.5	
7	.0	.4	7.6	5.2	.8	.4	14.4	
8-9	.0	.1	1.8	3.4	.4	.0	5.7	
10-11	.0	.1	1.0	2.0	.5	.0	3.7	
12	.0	.0	.4	.5	.3	.0	1.1	
13-16	.0	.0	.1	.9	.0	.0	1.0	
17-19	.0	.1	.0	.3	.6	.0	1.0	
20-22	.0	.0	.0	.3	.1	.0	.4	
23-25	.0	.0	.0	.0	.1	.0	.1	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.8	29.4	44.8	18.7	2.8	.4	100.0	785

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	3.7	5.2	2.7	1.9	1.0	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	175	4
6-7	.1	.1	3.3	4.8	5.0	3.3	2.5	.9	.6	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	238	7
8-9	.0	.0	.4	3.2	5.5	5.2	3.8	2.7	2.5	.7	.5	.2	.4	.0	.0	.0	.0	.0	.0	289	9
10-11	.0	.0	.2	.8	3.5	2.6	2.6	1.7	2.5	.9	.5	.1	.0	.0	.0	.0	.0	.0	.0	176	10
12-13	.0	.0	.1	.3	.7	1.5	1.1	1.0	2.6	.5	.8	.5	.1	.0	.0	.0	.0	.0	.0	107	13
>13	.0	.0	.0	.3	.1	.3	1.0	.6	1.1	.2	.3	.0	.3	.0	.0	.0	.0	.0	.0	49	13
INDFT	.4	.7	.5	1.3	1.7	1.4	1.7	.3	.5	.8	.1	.0	.2	.0	.0	.0	.0	.0	.0	110	8
TOTAL	10	51	112	155	211	177	148	83	115	36	26	9	12	0	0	0	0	0	0	1145	9
PCT	.9	4.5	9.8	13.5	18.4	15.5	12.9	7.2	10.0	3.1	2.3	.8	1.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1869-1969

JUNE

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHAR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	5.2	2.2	2.5	.0	.0	.0	.0	9.9	2.1	1.7	.3	.0	.0	.0	86.3	
NE	6.6	1.4	1.4	.0	.0	.0	.0	9.5	1.8	1.8	.0	.0	.0	.0	87.4	
E	5.2	2.3	3.5	.0	.0	.0	.0	11.0	3.2	.9	.0	.0	1.2	.0	83.9	
SE	4.8	4.6	5.5	.0	.0	.0	.0	14.0	3.2	.9	.0	.0	.0	.0	82.8	
S	3.4	11.8	.6	.0	.0	.0	.0	15.9	4.0	.6	.0	.0	.3	.0	79.2	
SW	4.3	12.8	2.3	.0	.0	.0	.4	19.5	5.3	.8	.5	.0	.2	.0	74.1	
W	10.5	13.5	2.0	.0	.0	.0	.3	26.1	5.3	3.5	.4	.0	.3	.0	66.9	
NW	6.8	4.6	.8	.0	.0	.0	.0	12.2	2.6	3.0	1.2	.0	.9	.0	80.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	6.7	.0	.0	.0	.0	.0	.0	6.7	.0	.0	.0	.0	.0	.0	93.3	
TOT	6.3	7.2	2.0	.0	.0	.0	.1	15.5	3.5	2.0	.4	.0	.3	.0	79.1	
PCT OBS:	1925															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT GB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	5.6	7.7	1.8	.0	.0	.0	.0	15.1	3.2	1.1	.5	.0	.4	.0	80.7
06009	5.2	7.7	1.2	.0	.0	.0	.2	14.1	4.0	.0	.2	.0	.5	.0	81.3
12015	7.9	7.3	1.1	.0	.0	.0	.2	18.4	3.0	3.2	.4	.0	.2	.0	77.4
18021	6.3	5.3	4.2	.0	.0	.0	.0	15.3	4.0	3.5	.7	.0	.2	.0	77.7
TOT PCT	6.3	7.1	2.0	.0	.0	.0	.1	15.3	3.5	1.9	.5	.0	.3	.0	79.3
TOT OBS:	1962														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.9	6.1	7.6	4.2	.6	.1		19.5	15.5		18.1	20.1	18.7	19.8	18.9	18.0	22.0	22.4
NE	.5	3.1	4.4	1.8	.3	.0		10.1	14.8		8.3	7.9	8.0	9.4	12.3	14.6	11.3	10.5
E	.3	2.0	1.4	.3	.0	.0		4.0	11.4		4.8	1.9	5.0	2.4	4.2	3.0	4.5	4.5
SE	.2	2.3	1.2	.9	.1	.0		4.7	13.2		4.7	3.1	7.5	3.3	5.2	2.5	5.9	2.3
S	.4	3.5	2.9	1.8	.4	.0		9.1	14.9		7.8	9.3	10.2	11.2	9.1	12.6	6.7	9.2
SW	.3	4.2	5.9	4.3	1.3	.1		16.1	18.3		16.1	20.6	13.5	19.4	15.0	17.6	11.8	19.5
W	.6	3.5	7.2	5.7	1.5	.3		18.8	19.5		19.0	19.8	19.6	18.8	19.9	16.0	18.0	15.5
NW	.4	4.2	6.9	4.2	1.0	.1		16.8	17.3		20.8	15.9	16.9	15.0	14.0	15.2	18.5	15.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.9							.9	.0		.4	1.4	.6	.6	1.3	.5	1.2	.5
TOT OBS	116	739	958	596	131	14	2554		16.5		534	291	338	165	539	183	330	174
TOT PCT	4.5	28.9	37.9	23.3	5.1	.5		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	03	06	12	18
N	2.5	8.4	4.8	1.7	.1			19.5	15.5		18.8	19.1	18.7	22.1	
NE	1.6	4.4	3.5	.7	*			10.1	14.8		8.2	8.4	12.9	11.1	
E	1.1	2.1	.8	.1	.0			4.0	11.4		3.8	4.1	3.9	4.6	
SE	1.3	2.1	.9	.4	.0			4.7	13.2		4.2	6.1	4.5	4.7	
S	2.1	3.2	2.5	1.2	*			9.1	14.9		8.3	10.5	10.0	7.6	
SW	1.7	5.7	5.4	2.9	.3			16.1	18.3		17.7	15.5	15.7	14.5	
W	2.2	5.2	6.9	3.9	.5			18.8	19.5		19.3	19.3	18.9	17.2	
NW	1.7	6.9	5.8	2.3	.2			16.8	17.3		19.1	16.3	14.3	17.4	
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0	
CALM	.9							.9	.0		.7	.6	1.1	1.0	
TOT OBS	385	972	830	339	28	2554			16.5		825	503	722	504	
TOT PCT	15.1	38.1	32.5	13.3	1.1			100.0			100.0	100.0	100.0	100.0	



PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1869-1969

JUNE

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOOR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	.7	4.8	28.2	37.0	23.8	4.7	.7	16.3	100.0	825
06009	.6	2.2	29.4	38.6	23.1	5.6	.6	16.9	100.0	503
12015	1.1	3.6	31.3	35.6	22.6	5.1	.7	16.3	100.0	722
18021	1.0	3.4	26.2	40.1	24.0	5.4	.0	16.6	100.0	504
TOT	22	94	739	958	596	131	14	16.5		2554
PCT	.9	3.7	28.9	37.5	23.3	5.1	.5	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	5.2	2.7	7.1	5.3		4.9
NE	2.2	1.2	3.1	3.0		5.3
E	1.0	1.1	2.0	1.5		5.3
SE	1.1	1.0	2.6	2.0		5.3
S	.7	1.8	3.8	1.5		5.4
SW	1.9	3.0	6.3	1.4		4.9
W	3.0	4.1	8.9	3.6		5.1
NW	4.3	2.3	7.4	2.9		4.9
VAR	.0	.0	.0	.0		.0
(CALM)	.2	.1	.2	.3		4.9
TOT OBS	238	209	501	260	1208	5.1
TOT PCT	19.7	17.3	41.5	21.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.3	1.6	3.3	1.7	.8	.4	.3	.5	11.4	
NE	.0	.0	.0	1.0	1.8	.9	.4	.2	.1	.1	4.9	
E	.0	.0	.0	.7	1.1	.4	.2	.1	.0	.0	2.9	
SE	.1	.0	.2	.6	1.5	1.0	.4	.1	.0	.0	2.9	
S	.0	.0	.1	.6	2.1	1.0	.4	.4	.1	.0	3.2	
SW	.0	.0	.2	1.3	2.7	.8	.7	.5	.1	.0	6.5	
W	.0	.0	.2	2.4	3.4	1.4	.8	.5	.1	.0	10.8	
NW	.0	.0	.3	1.0	2.8	1.1	.9	.1	.0	.4	10.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
(CALM)	.0	.0	.0	.1	.2	.2	.0	.0	.0	.0	.5	
TOT OBS	1	0	112	112	228	103	56	27	8	12	845	1208
TOT PCT	.1	.0	1.3	9.3	18.9	8.5	4.6	2.2	.7	1.0	53.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)			VSBY (NM)			VSBY (NM)		
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0	
OR >5000	1.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6	
OR >5000	3.4	3.8	3.8	3.8	3.8	3.8	3.8	3.8	
OR >5000	7.3	8.2	8.3	8.3	8.3	8.3	8.3	8.3	
OR >5000	14.4	16.4	16.7	16.7	16.7	16.7	16.8	16.8	
OR >5000	27.9	34.2	35.1	35.5	35.5	35.5	35.6	35.6	
OR >5000	33.2	42.6	44.2	44.7	44.8	44.8	44.9	44.9	
OR >5000	33.7	43.8	45.5	46.0	46.1	46.1	46.2	46.2	
OR >5000	33.7	43.8	45.5	46.0	46.1	46.1	46.2	46.2	
OR >5000	33.7	43.8	45.5	46.0	46.1	46.1	46.2	46.2	
TOTAL	413	536	557	563	564	564	565	565	

TOTAL NUMBER OF OBS: 1224

PCT FREQ NH <5/8: 53.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
7.4	11.6	12.0	10.8	9.9	9.3	10.9	10.1	18.0	.1	1348

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1869-1969

JUNE

AREA 0016 ESPERANCE BAY S  
35.4S 120.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	NO PCP	.1	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
	TOT %	.1	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
1<2	PCP	.1	.0	.0	.0	.0	.1	.1	.1	.0	.0	.4	
	NO PCP	.1	.1	.1	.0	.0	.1	.2	.0	.0	.0	.3	
	TOT %	.1	.1	.1	.0	.0	.1	.3	.1	.0	.0	.7	
2<5	PCP	.2	.1	.1	.1	.0	.1	.4	.3	.0	.1	1.2	
	NO PCP	.2	.1	.0	.0	.0	.1	.2	.1	.0	.0	.6	
	TOT %	.5	.1	.1	.1	.0	.1	.6	.4	.0	.1	1.8	
5<10	PCP	1.0	.7	.4	.5	1.1	2.1	3.2	1.0	.0	.0	9.9	
	NO PCP	4.8	1.8	.7	.7	1.8	3.5	4.1	4.1	.0	.1	21.6	
	TOT %	5.8	2.5	1.1	1.1	2.8	5.6	7.3	5.1	.0	.1	31.4	
10+	PCP	.7	.1	.1	.2	.3	.6	1.3	.7	.0	.0	4.0	
	NO PCP	13.2	6.5	3.2	4.2	5.3	8.1	9.5	11.3	.0	.6	61.9	
	TOT %	13.9	6.6	3.3	4.4	5.6	8.6	10.8	12.0	.0	.6	65.9	
TOT OBS													1924
TOT PCT													20.3 9.2 4.5 5.6 8.4 14.5 19.0 17.7 .0 .8 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
1<2	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	4-10	.1	.0	.0	.0	.0	.1	.3	.2	.0	.0	.8	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.3	
	TOT %	.2	.1	.0	.0	.1	.3	.5	.3	.0	.0	1.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.3	
	11-21	.1	.0	.0	.0	.0	.0	.2	.2	.0	.0	.6	
	22+	.3	.0	.0	.0	.0	.0	.3	.1	.0	.0	.8	
	TOT %	.5	.1	.0	.0	.0	.1	.6	.4	.0	.0	1.9	
5<10	0-3	.1	.0	.0	.1	.1	.0	.0	.0	.0	.1	.5	
	4-10	1.2	.5	.4	.3	.7	1.2	.7	.8	.0	.0	5.7	
	11-21	2.5	1.0	.5	.3	1.0	1.5	2.9	2.3	.0	.0	11.9	
	22+	1.8	.9	.1	.5	1.0	2.7	3.4	1.8	.0	.0	12.2	
	TOT %	5.6	2.5	1.1	1.1	2.8	5.4	7.0	4.8	.0	.1	30.4	
10+	0-3	.7	.5	.2	.1	.1	.2	.4	.4	.0	.6	3.3	
	4-10	4.8	2.4	1.7	2.3	2.6	2.1	2.3	3.3	.0	.0	21.5	
	11-21	5.4	2.7	1.1	1.0	2.1	4.0	3.9	4.7	.0	.0	25.0	
	22+	3.0	1.2	.2	.7	.9	2.7	4.0	3.4	.0	.0	16.2	
	TOT %	13.9	6.8	3.2	4.2	5.8	9.0	10.6	11.8	.0	.6	66.0	
TOT OBS													2049
TOT PCT													20.2 9.5 4.4 5.4 8.7 14.8 18.8 17.5 .0 .8 100.0

JUNE

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1869-1969AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	1.5	9.6	24.4	8.0	3.7	2.5	.3	.3	50.3	49.7	324
06009	.3	.0	.3	9.1	19.1	7.6	4.5	2.7	.9	.9	45.5	54.5	330
12015	.0	.0	1.3	8.0	14.7	7.4	4.8	1.9	.3	1.0	39.4	60.6	312
18021	.0	.0	2.0	9.4	14.1	10.1	4.7	1.3	1.0	1.7	44.3	55.7	298
TOT	1	0	16	114	230	104	56	27	8	12	568	696	1264
PCT	.1	.0	1.3	9.0	18.2	8.2	4.4	2.1	.6	.9	44.9	55.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.3	.0	1.5	30.9	67.3	606
06009	.2	.0	.5	.9	28.6	69.8	444
12015	.0	.2	4.6	2.7	32.9	59.7	590
18021	.0	.4	.7	2.0	28.3	68.6	446
TOT	1	5	32	38	634	1376	2086
PCT	.0	.2	1.5	1.8	30.4	66.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	1.9	13.3	38.3	48.4	316
06009	.0	.6	10.6	35.4	54.0	322
12015	.0	1.3	10.9	29.3	59.9	304
18021	.0	2.1	13.5	33.3	53.2	282
TOT	0	18	147	418	659	1224
PCT	.0	1.5	12.0	34.2	53.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.1	.0	.0	.1	.0	.0	.0	3	.2
65/69	.0	.2	.0	.5	1.4	2.1	1.7	.4	100	6.3
60/64	.0	.0	.1	1.2	5.3	13.8	13.4	5.6	625	39.4
55/59	.0	.0	.2	1.8	8.1	14.0	14.1	7.2	722	45.5
50/54	.0	.0	.0	.6	1.8	2.8	2.0	1.3	133	8.4
45/49	.0	.0	.0	.0	.0	.1	.1	.1	4	.3
TOTAL	0	5	5	65	264	520	496	232	1587	100.0
PCT	.0	.3	.3	4.1	16.6	32.8	31.3	14.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
70/74	.2	.0	.0	.0	.0	.0	.0	*	.0	.0
65/69	2.4	1.0	.1	.0	*	.1	.5	2.2	.0	.0
60/64	12.7	4.4	1.0	.4	.6	2.3	7.6	10.1	.0	.3
55/59	4.8	4.2	3.2	4.1	5.9	9.0	9.2	4.6	.0	.4
50/54	.1	.2	.9	.9	1.7	2.5	1.7	.2	.0	.1
45/49	.0	.0	.0	.1	.1	*	.1	.0	.0	.0
TOTAL	20.1	9.8	5.2	5.5	8.4	13.9	19.1	17.1	.0	.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	68	66	64	59	53	51	47	59.0	817
06009	70	67	65	60	54	52	49	59.6	498
12015	70	67	64	59	53	51	49	58.8	721
18021	67	66	64	59	52	51	49	58.7	507
TOT	70	67	65	59	53	51	47	59.0	2543

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	4.6	13.3	32.4	33.3	16.5	79	460
06009	.0	5.7	24.3	32.6	24.9	12.6	76	350
12015	.0	3.4	16.4	32.6	33.3	14.4	79	445
18021	.0	6.1	14.1	33.5	31.9	14.4	78	361
TOT	0	78	270	529	503	236	78	1616

JUNE

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1869-1969AREA 0016 ESPERANCA BAY S  
35.45 120.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
9/10	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
7/8	.0	.0	.1	.0	.1	.1	.1	4	.0	.3
6	.0	.0	.0	.2	.0	.1	.0	4	.0	.3
5	.0	.0	.0	.1	.3	.3	.1	13	.0	.8
4	.0	.0	.0	.1	1.0	.7	.0	29	.0	1.8
3	.0	.0	.0	.6	2.4	1.1	.1	66	.1	4.1
2	.0	.0	.1	1.8	4.1	.9	.1	112	.1	7.0
1	.0	.0	.1	3.6	4.8	1.1	.0	154	.1	9.5
0	.0	.0	.4	5.0	4.1	.4	.0	157	.1	9.7
-1	.0	.0	.5	7.8	4.2	.4	.0	206	.0	12.9
-2	.0	.0	1.7	5.6	2.4	.3	.1	159	.1	9.9
-3	.0	.3	2.6	6.3	1.9	.3	.0	182	.1	11.3
-4	.0	.3	3.0	3.5	1.3	.1	.0	130	.0	8.2
-5	.0	.3	2.5	2.8	.9	.1	.0	105	.0	6.6
-6	.0	.4	3.5	1.5	.8	.0	.0	99	.0	6.2
-7/-8	.0	.6	3.2	2.5	.3	.0	.0	105	.0	6.6
-9/-10	.1	.8	1.4	.9	.4	.0	.0	48	.0	3.0
-11/-13	.0	.5	.5	.1	.0	.0	.0	18	.0	1.1
TOTAL	1		311		462		6	1593		9 1584
PCT	.1	43	677		93		.4	100.0	.6	99.4

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.7	.1	.0	.0	.0	1.0	.2	.3	.0	.0	.0	.0	.5
1-2	.3	2.6	.6	.0	.0	.0	3.4	.0	1.2	.6	.0	.0	.0	1.9
3-4	.0	2.4	3.5	.0	.0	.0	6.0	.0	.6	1.2	.1	.0	.0	1.9
5-6	.0	.7	3.8	1.0	.0	.0	5.6	.0	.4	.9	.5	.0	.0	1.9
7	.0	.1	1.0	.9	.1	.0	2.1	.0	.0	.4	.2	.0	.0	.6
8-9	.0	.0	.1	.5	.0	.0	.7	.0	.0	.1	.5	.0	.0	.6
10-11	.0	.0	.1	.4	.1	.0	.7	.0	.0	.0	.1	.1	.0	.3
12	.0	.0	.0	.1	.1	.0	.2	.0	.0	.0	.0	.1	.0	.1
13-16	.0	.0	.0	.1	.1	.0	.3	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	6.6	9.4	3.1	.7	.0	20.1	.2	2.5	3.3	1.5	.3	.0	7.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.4	.0	.0	.0	.0	.6	.0	.4	.1	.0	.0	.0	.6
1-2	.0	1.1	.4	.0	.0	.0	1.5	.0	1.1	.3	.0	.0	.0	1.4
3-4	.0	.4	.9	.0	.0	.0	1.3	.0	.3	.1	.6	.0	.0	1.0
5-6	.0	.0	.9	.4	.0	.0	1.3	.0	.0	.1	.6	.0	.0	1.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.3
8-9	.0	.0	.4	.0	.0	.0	.4	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.1	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.0	2.5	.4	.0	.0	5.0	.0	1.8	1.4	2.1	.1	.0	5.5

PERIOD: (OVER-ALL) 1963-1969

JUNE

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	SW	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3
1-2	.0	1.0	.1	.0	.0	.0	1.1	.0	.0	1.1	.3	.0	.0	.0	1.4
3-4	.0	.0	1.2	.8	.0	.0	2.0	.0	.0	.9	1.6	.1	.0	.0	2.6
5-6	.0	.3	1.1	.6	.0	.0	1.9	.0	.0	.6	1.2	.6	.0	.0	2.4
7	.0	.1	.6	.1	.0	.0	.8	.0	.0	.2	1.1	1.3	.2	.1	2.9
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.3	.8	.0	.0	1.2
10-11	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.1	.6	.0	.0	.7
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0	.4
17-19	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.3	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.5	2.6	1.2	.3	.0	6.6	.0	.0	3.1	4.7	3.8	1.0	.3	12.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	NW	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.1	.0	.0	.0	.0	.1	.0	.0	.4	.0	.0	.0	.0	.4	
1-2	.1	1.4	.0	.0	.0	.0	1.5	.0	.0	1.8	.7	.0	.0	.0	2.5	
3-4	.0	1.0	2.1	.3	.0	.0	3.4	.0	.0	2.1	2.4	1.2	.0	.0	5.7	
5-6	.0	.1	3.4	.8	.0	.0	4.3	.0	.0	.1	3.2	.3	.0	.0	3.7	
7	.0	.0	1.5	2.6	.6	.0	4.8	.0	.0	.0	1.6	1.4	.4	.0	3.3	
8-9	.0	.0	.4	1.4	.5	.0	2.3	.0	.0	.1	.2	.7	.5	.0	1.5	
10-11	.0	.0	.3	1.5	.5	.0	2.3	.0	.0	.0	.0	.3	.5	.0	.7	
12	.0	.0	.0	.9	.4	.1	1.4	.0	.0	.0	.0	.4	.0	.0	.4	
13-16	.0	.0	.0	.4	.3	.0	.7	.0	.0	.0	.0	.4	.3	.0	.7	
17-19	.0	.0	.0	.1	.3	.0	.4	.0	.0	.1	.0	.0	.1	.0	.3	
20-22	.0	.0	.0	.1	.1	.0	.3	.0	.0	.0	.0	.0	.0	.1	.1	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	2.6	7.7	8.1	2.8	.3	21.7	.0	.0	4.8	8.0	4.6	1.8	.1	19.4	99.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.6	2.8	.3	.0	.0	.0	4.7	
1-2	.4	11.4	3.1	.0	.0	.0	14.9	
3-4	.0	8.7	12.7	2.4	.0	.0	23.7	
5-6	.0	2.4	14.7	4.7	.0	.0	21.8	
7	.0	.4	6.2	6.6	1.3	.1	14.7	
8-9	.0	.1	1.8	4.0	1.0	.0	6.9	
10-11	.0	.0	.7	3.5	1.3	.0	5.6	
12	.0	.0	.0	2.1	.9	.1	3.1	
13-16	.0	.0	.0	1.2	1.0	.0	2.2	
17-19	.0	.1	.0	.1	.7	.0	1.0	
20-22	.0	.0	.0	.1	.6	.1	.9	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.3	.3	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.1	26.0	39.5	24.8	6.9	.7	100.0	678

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	3.3	4.9	2.0	1.9	.5	.5	.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.7
6-7	.0	.3	2.7	5.0	4.2	3.5	2.3	1.1	.9	.4	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	20.7
8-9	.0	.0	.6	3.7	4.4	4.6	3.0	2.6	2.8	.8	.9	.1	.2	.0	.0	.0	.0	.0	.0	.0	23.7
10-11	.0	.0	.3	1.7	2.7	2.8	2.2	2.7	1.9	1.2	.8	.2	.3	.0	.0	.0	.0	.0	.0	.0	16.8
12-13	.0	.0	.2	.6	.8	1.2	1.6	1.3	1.0	.4	.5	.5	.2	.0	.0	.0	.0	.0	.0	.0	8.3
>13	.0	.0	.0	.0	.3	.4	.4	.4	1.2	.4	.4	.4	.8	.1	.0	.0	.0	.0	.0	.0	4.8
INDET	.5	1.3	1.3	1.2	1.6	1.2	2.2	.3	.7	.1	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	10.7
TOTAL	1.5	4.9	10.0	14.2	15.9	14.2	12.2	8.6	8.8	3.4	2.8	1.2	1.9	.1	.0	.0	.0	.0	.0	.0	99.7
PCT	1.5	4.9	10.0	14.2	15.9	14.2	12.2	8.6	8.8	3.4	2.8	1.2	1.9	.1	.0	.0	.0	.0	.0	.0	100.0



PERIOD: (PRIMARY). 1913-1970  
(OVER-ALL) 1850-1970

JULY

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	5.0	2.4	.3	.0	.0	.0	.0	7.7	2.8	.6	.4	.0	.0	.0	88.5
NE	6.0	4.3	1.1	.0	.0	.0	.0	11.3	.9	.0	1.7	.0	.0	.0	86.1
E	1.6	10.7	1.6	.0	.0	.0	.0	14.0	4.9	.0	1.6	.0	.0	.0	79.4
SE	3.4	4.5	.0	.0	.0	.0	.0	7.9	4.5	.0	.0	.0	.0	.0	87.6
S	2.9	10.1	1.6	.0	.0	.0	.0	14.6	3.1	.0	.6	.0	.6	.0	81.1
SW	5.6	15.8	.8	.0	.0	.0	.3	22.4	3.7	.6	.9	.0	.0	.0	72.4
W	6.9	13.7	2.1	.0	.0	.0	.4	23.1	7.7	1.7	1.0	.0	.2	.2	66.8
NW	6.7	5.5	1.3	.0	.0	.0	.3	13.6	3.9	3.5	.9	.0	.3	.0	78.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	5.7	9.9	1.3	.0	.0	.0	.2	17.0	4.6	1.3	.9	.0	.2	.1	76.4
TOT OBS:	1885														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWK	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0600	5.2	10.9	1.3	.0	.0	.0	.0	17.4	3.2	.0	.7	.0	.4	.0	78.3
0609	5.1	9.0	.7	.0	.0	.0	.7	15.5	6.1	.2	.5	.0	.0	.2	77.7
12015	7.4	9.4	1.3	.0	.0	.0	.0	18.1	3.4	2.0	1.3	.0	.2	.0	75.9
18021	4.8	9.7	1.9	.0	.0	.0	.2	16.4	6.3	3.4	1.0	.0	.0	.0	73.4
TOT PCT TOT OBS: 1916	5.7	9.8	1.3	.0	.0	.0	.2	17.0	4.5	1.4	.9	.0	.2	.1	76.4

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.6	3.8	5.1	3.3	.8	*		13.7	16.6		12.5	11.5	12.2	10.4	13.7	16.8	16.3	18.4
NE	.1	2.2	2.7	1.5	.2	.1		6.8	16.0		6.5	5.2	6.2	6.5	7.5	9.8	5.6	7.4
E	.2	1.7	1.2	.2	*	.0		3.2	11.1		2.1	3.3	4.5	3.1	3.6	4.8	2.5	2.8
SE	.1	1.3	.7	.1	.1	*		2.3	11.6		2.2	3.1	2.0	2.6	2.4	1.5	3.3	.8
S	.3	3.3	2.9	1.3	.5	.1		8.5	15.3		8.8	10.6	6.3	11.5	8.3	9.4	6.9	7.1
SW	.3	4.2	8.1	4.8	1.8	.3		19.5	19.5		20.4	20.2	18.4	18.6	20.5	18.9	16.4	21.9
W	.4	5.4	9.6	7.6	3.6	.5		27.1	20.9		27.2	25.0	31.9	27.3	25.2	24.5	30.1	25.0
NW	.4	4.6	5.9	4.7	1.8	.3		17.7	18.8		19.4	18.9	18.4	17.3	17.7	14.0	18.2	14.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.1	.0	.0	.0	.0	.0		1.1	.0		1.0	2.2	.0	2.6	.9	.5	.6	2.0
TOT OBS	89	664	906	989	222	33	2503		18.1		497	269	305	192	535	200	309	195
TOT PCT	3.6	26.5	36.2	23.5	8.9	1.3		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	2.1	5.4	4.3	1.6	.3				13.7	16.6		12.1	11.5
NE	.8	3.2	1.9	.7	.1				6.8	16.0		6.0	6.3
E	.8	1.8	.5	.1	.0				3.2	11.1		2.5	4.0
SE	.4	1.5	.2	.1	*				2.3	11.6		2.5	2.2
S	1.6	3.5	2.4	.5	.3				8.5	15.3		9.4	8.3
SW	1.7	6.7	7.0	3.2	1.0				19.5	19.5		20.3	18.5
W	2.4	7.9	9.1	6.1	1.6				27.1	20.9		26.4	30.1
NW	2.6	5.8	5.4	3.0	.9				17.7	18.8		19.2	18.0
VAR	.0	.0	.0	.0	.0				.0	.0		.0	.0
CALM	1.1	.0	.0	.0	.0				1.1	.0		1.4	1.0
TOT OBS	340	899	772	345	107	2503			786	497		736	505
TOT PCT	13.6	35.9	30.8	15.4	4.3				100.0			100.0	100.0

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1858-1970

JULY

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35.45 120.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
07003	1.4	2.9	25.7	36.0	23.1	9.9	.9	18.1	100.0	766
06009	1.0	2.2	25.6	33.6	26.8	9.3	1.6	18.8	100.0	497
12615	.8	3.0	30.3	34.1	21.8	8.2	1.8	17.5	100.0	735
18621	1.2	1.2	23.2	42.0	23.6	7.9	1.0	18.2	100.0	505
TOT	28	61	664	906	589	222	33	18.1		2503
PCT	1.1	2.4	26.5	36.2	23.5	8.9	1.3		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.2	1.6	4.9	3.2	4.9	
NE	1.9	.6	2.4	1.0	4.4	
E	.9	.8	1.3	.4	4.5	
SE	.3	.5	.8	.4	5.1	
S	1.1	1.6	3.4	1.3	5.0	
SW	2.8	6.0	7.9	2.1	4.7	
W	6.4	6.9	11.1	5.8	4.8	
NW	5.0	2.8	6.9	4.1	4.8	
VAR	.0	.0	.0	.0	.0	
CALM	.1	.0	.1	.0	4.0	
TOT OBS	239	230	427	202	1098	4.8
TOT PCT	21.8	20.9	38.9	18.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.4	1.9	1.3	1.3	.3	.0	.5	7.1	
NE	.0	.0	.1	.2	.4	1.0	.4	.2	.1	.1	3.5	
E	.0	.1	.0	.3	.5	.3	.2	.1	.0	.0	2.0	
SE	.0	.0	.0	.1	.1	.4	.4	.0	.0	.0	1.2	
S	.0	.0	.1	.7	1.6	.9	.2	*	.0	.1	3.7	
SW	.0	.0	.4	2.0	3.4	1.4	1.1	*	.0	.0	10.6	
W	.0	.0	.5	3.4	5.5	1.5	1.5	.4	.1	.1	17.3	
NW	.0	.0	.2	1.6	2.6	1.2	1.1	.9	.0	.4	10.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
TOT OBS	0	1	14	95	175	87	69	23	2	13	619	1098
TOT PCT	.0	.1	1.3	8.7	15.9	7.9	6.3	2.1	.2	1.2	56.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>A500	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4
>A400	2.9	3.3	3.5	3.5	3.5	3.5	3.5	3.5
>A300	7.7	9.5	9.7	9.7	9.7	9.7	9.7	9.8
>A200	14.4	17.4	17.7	17.7	17.7	17.7	17.7	17.8
>A100	26.6	32.9	33.4	33.5	33.5	33.5	33.5	33.6
>A600	31.1	41.2	41.8	42.2	42.2	42.2	42.2	42.3
>A500	31.8	42.3	43.0	43.4	43.5	43.5	43.5	43.6
>A400	31.9	42.3	43.1	43.5	43.6	43.6	43.6	43.7
>A300	31.9	42.3	43.1	43.5	43.6	43.6	43.6	43.7
TOTAL	354	470	478	483	484	484	484	485

TOTAL NUMBER OF OBS: 1110

PCT FREQ NH <5/8: 56.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	7.9	9.4	12.3	14.1	12.9	10.4	10.7	9.3	12.9	.0	1234

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1858-1970

JULY

AREA 0016 ESPERANCF BAY 5  
35.45 120.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.1	*	.0	.0	.0	.1	
	NO PCP	.0	.1	.1	.0	.1	.0	.1	.0	.0	.0	.3	
	TOT %	.0	.1	.1	.0	.1	.1	.1	.0	.0	.0	.4	
1<2	PCP	*	.0	.0	.0	.0	.1	.2	.1	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.1	.0	.1	.1	.0	.0	.2	
	TOT %	*	.0	.0	.0	.1	.1	.2	.1	.0	.0	.5	
2<5	PCP	*	*	.0	.1	.0	.1	.4	.1	.0	.0	.7	
	NO PCP	.1	*	.0	.0	.0	.1	.1	.0	.0	.0	.3	
	TOT %	.1	*	.0	.1	.0	.2	.5	.1	.0	.0	1.0	
5<10	PCP	.4	.4	.3	.1	.7	3.0	4.0	1.8	.0	.0	10.9	
	NO PCP	3.4	1.8	.5	.6	2.2	4.8	6.4	3.6	.0	.1	23.5	
	TOT %	4.0	2.2	.9	.7	3.0	7.7	10.4	5.4	.0	.1	34.4	
10+	PCP	.3	.3	.1	.0	.5	1.1	1.9	.5	.0	.0	4.7	
	NO PCP	8.4	3.6	2.2	1.6	5.0	10.3	15.2	12.0	.0	.6	58.9	
	TOT %	8.8	3.9	2.3	1.6	5.4	11.5	17.1	12.6	.0	.6	63.6	
TOT OBS													
TOT PCT													
		12.9	6.2	3.2	2.3	8.6	19.6	28.3	18.2	.0	.6	100.0	1884

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	22+	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	*	
	TOT %	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	*	*	.0	*	.0	.0	.0	.0	.0	.1	
	11-21	.0	*	.0	.0	.0	*	*	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
	TOT %	.0	.1	*	.0	*	.1	.1	.0	.0	.0	.3	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	*	.0	*	.1	
	4-10	*	.0	.0	.0	*	.0	*	.1	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.1	*	.1	.0	.0	.2	
	22+	*	.0	.0	.0	.0	.0	.2	.1	.0	.0	.3	
	TOT %	.1	.0	.0	.0	*	.1	.2	.4	.0	*	.9	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	
	11-21	.1	*	.0	*	.0	.1	.1	*	.0	.0	.4	
	22+	.1	*	.0	.0	.0	.1	.5	.1	.0	.0	.8	
	TOT %	.1	*	.0	*	.0	.3	.6	.2	.0	.0	1.3	
5<10	0-3	.1	*	.1	.0	.2	.2	.1	.1	.0	*	.9	
	4-10	.5	.4	.3	.3	1.0	.7	.9	.7	.0	.0	4.8	
	11-21	1.5	1.1	.4	.3	.9	2.9	2.9	1.6	.0	.0	11.7	
	22+	1.6	.5	*	.0	.7	3.4	5.7	2.8	.0	.0	14.7	
	TOT %	3.8	2.0	.8	.7	2.7	7.2	9.7	5.2	.0	*	32.1	
10+	0-3	.5	.1	.1	*	.1	.1	.3	.4	.0	.8	2.5	
	4-10	3.3	1.8	1.5	1.1	2.2	3.2	4.1	3.9	.0	.0	21.0	
	11-21	3.3	1.5	.6	.2	2.0	5.2	7.3	4.6	.0	.0	24.9	
	22+	2.2	.8	.2	.1	1.0	3.3	5.5	3.8	.0	.0	17.0	
	TOT %	9.3	4.2	2.4	1.5	5.3	11.8	17.3	12.7	.0	.8	65.3	
TOT OBS													
TOT PCT													
		13.3	6.3	3.2	2.2	8.2	19.5	27.9	18.4	.0	.9	100.0	2067

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1858-1970

JULY

AREA 0016 ESPERANCE BAY S  
35.45 170.86

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.3	1.0	9.0	18.0	7.6	7.3	1.4	.0	1.4	46.0	54.0	289
06009	.0	.0	2.3	9.4	16.3	9.1	5.2	2.0	.0	.3	44.6	55.4	307
12015	.0	.0	.3	7.0	12.8	7.4	5.7	2.0	.3	2.0	37.6	62.4	298
18021	.0	.0	1.4	7.1	11.9	5.8	5.4	2.4	.3	1.0	35.4	64.6	294
TOT	0	1	15	97	175	84	70	23	2	14	486	702	1188
PCT	.0	.1	1.3	8.2	14.7	7.5	5.9	1.9	.2	1.2	40.9	59.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.2	.7	1.0	34.5	63.6	594
06009	.0	.5	.7	1.1	26.9	70.9	443
12015	.2	.8	1.5	1.3	37.3	59.0	614
18021	.2	.0	.4	1.8	28.0	69.6	447
TOT	2	8	18	27	678	1365	2098
PCT	.1	.4	.9	1.3	32.3	65.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	1.5	11.6	38.2	50.2	267
06009	.0	2.4	13.3	33.7	53.1	294
12015	.4	.7	10.1	32.5	57.5	268
18021	.4	1.8	10.0	27.4	62.6	281
TOT	2	18	125	365	620	1110
PCT	.2	1.6	11.3	32.9	55.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
70/74	.0	.0	.0	.0	.1	.1	.0	.0	3	.2
65/69	.0	.1	.1	.1	.4	.4	.3	.1	21	1.5
60/64	.0	.0	.1	1.2	5.0	7.9	7.8	2.1	342	24.2
55/59	.0	.0	.1	2.0	9.7	21.5	17.9	5.5	799	56.6
50/54	.0	.0	.1	1.8	3.8	3.7	5.9	1.8	240	17.0
45/49	.0	.0	.0	.0	.1	.1	.0	.2	5	.4
TOTAL	0	1	7	71	271	476	449	136	1411	100.0
PCT	.0	.1	.5	5.0	19.2	33.7	31.8	9.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
.1	.0	.0	.0	.0	.1	.0	.1	.0	.0
.2	.4	.0	.0	.0	.1	.5	.2	.0	.1
6.0	1.7	.4	.0	.2	1.1	6.1	8.3	.0	.3
6.0	2.8	2.1	1.1	3.5	12.6	18.2	10.0	.0	.4
.4	.4	.7	.9	3.6	6.0	4.2	.7	.0	.1
.0	.0	.0	.1	.1	*	.1	.0	.0	.0
12.8	5.3	3.2	2.2	7.4	19.8	29.2	19.3	.0	.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	69	64	52	57	52	49	47	57.1	756
06009	71	67	63	58	54	50	49	58.2	493
12015	75	65	62	57	52	50	47	56.9	736
18021	70	64	62	57	52	49	47	56.8	507
TOT	75	65	62	57	52	50	47	57.2	2492

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	3.3	15.3	34.5	35.0	11.8	79	391
06009	.0	6.7	26.3	33.0	26.6	7.4	75	312
12015	.0	7.6	15.8	32.8	34.5	9.4	77	406
18021	.0	5.0	21.4	34.4	30.0	9.3	77	323
TOT	0	81	275	482	457	137	77	1432

JULY

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1858-1970AREA 0016 ESPERANCE RAY S  
35.45 120.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP UIF	45 48	49 52	53 55	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	NO FOG
9/10	.0	.0	.0	.1	.1	.0	.0	.0	2	.0	.1
7/8	.0	.0	.0	.1	.1	.0	.1	.0	3	.0	.2
6	.0	.0	.0	.0	.1	.1	.0	.0	3	.0	.2
5	.0	.0	.0	.1	.5	.1	.0	.0	10	.0	.6
4	.0	.0	.0	.3	.7	.0	.1	.1	18	.0	1.2
3	.0	.0	.2	1.1	1.3	.0	.1	.0	42	.0	2.7
2	.0	.0	.3	2.8	1.9	.3	.0	.0	83	.1	5.2
1	.0	.0	.5	4.4	2.0	.2	.1	.0	112	.3	6.9
0	.0	.1	1.5	7.6	1.5	.1	.1	.0	169	.1	10.8
-1	.0	.1	2.9	7.4	1.3	.1	.0	.0	183	.1	11.7
-2	.0	.2	2.9	5.7	1.3	.1	.0	.0	159	.1	10.1
-3	.0	.3	5.1	4.0	.7	.1	.0	.0	159	.2	10.0
-4	.0	.8	6.6	3.1	1.0	.1	.0	.0	180	.2	11.3
-5	.0	1.1	3.9	3.4	.4	.0	.0	.0	138	.1	8.7
-6	.0	.8	2.9	1.9	.3	.0	.0	.0	93	.1	5.9
-7/-8	.0	1.4	4.3	2.2	.0	.0	.0	.0	123	.0	7.9
-9/-10	.1	.8	2.1	.8	.0	.0	.0	.0	58	.0	3.7
-11/-13	.0	.6	.6	.2	.0	.0	.0	.0	23	.0	1.5
-14/-16	.0	.1	.2	.0	.0	.0	.0	.0	4	.0	.3
TOTAL	1	98	531	704	206	16	5	1	1562	1.1	1545
PCT	.1	6.3	34.0	45.1	13.2	1.0	.3	.1	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1963-1970

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.1	.0	.0	.0	.6	.2	.2	.0	.0	.0	.0	.4
1-2	.0	1.8	.5	.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.2
3-4	.0	.7	2.2	.3	.0	.0	3.2	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	1.1	1.1	.3	.0	2.5	.0	.5	.9	.2	.0	.0	1.6
7	.0	.0	.1	.8	.0	.0	1.0	.0	.0	.2	.5	.0	.0	.7
8-9	.0	.0	.5	.4	.2	.0	1.1	.0	.0	.0	.3	.0	.0	.3
10-11	.0	.0	.2	.1	.0	.0	.3	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.0	4.8	2.9	.4	.0	11.1	.2	.8	1.3	1.2	.0	.0	3.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4	.0	.1	.0	.0	.0	.0	.1
1-2	.0	.3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.2
3-4	.0	.4	.4	.0	.0	.0	.7	.0	.4	.0	.0	.0	.0	.4
5-6	.0	.0	.5	.0	.0	.0	.5	.0	.0	.2	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	.9	.1	.0	.0	2.1	.2	.3	.2	.0	.0	.0	.9



PERIOD: (OVER-ALL) 1963-1970

JULY

AREA 0016, ESPERANCE BAY S  
35.45 120.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.4	.0	.0	.0	.0	.4
1-2	.0	.9	.2	.0	.0	.0	1.1	.0	1.4	.5	.0	.0	.0	1.9
3-4	.0	.6	.8	.0	.0	.0	1.4	.0	2.1	3.0	.2	.0	.0	5.3
5-6	.0	.1	.9	.2	.0	.0	1.2	.0	.4	4.1	1.0	.0	.0	5.5
7	.0	.0	.5	.1	.0	.0	.7	.0	.2	1.5	1.2	.0	.0	3.0
8-9	.0	.0	.0	.5	.2	.0	.7	.0	.2	.4	1.6	.4	.0	2.5
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.7	1.2	.5	.0	2.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0	.7
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.4
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.8	2.4	.9	.2	.0	5.4	.0	4.6	10.3	6.2	2.0	.2	23.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.6	
1-2	.2	1.4	.6	.0	.0	.0	2.2	.4	1.2	.4	.0	.0	.0	2.2	
3-4	.0	2.1	2.6	.1	.0	.0	4.8	.0	.7	2.2	.4	.0	.0	3.3	
5-6	.0	.0	6.4	1.3	.0	.0	7.7	.0	.2	2.7	2.4	.1	.0	5.4	
7	.0	.0	2.6	3.0	.8	.0	6.5	.0	.0	1.5	1.0	.2	.0	2.6	
8-9	.0	.0	.2	3.4	.4	.0	3.9	.0	.0	.2	2.0	.5	.0	2.7	
10-11	.0	.1	.1	1.5	.3	.0	2.1	.0	.0	.0	.7	.1	.2	1.0	
12	.0	.0	.0	1.0	.7	.0	1.7	.0	.0	.0	.5	.4	.0	.9	
13-16	.0	.0	.0	.4	1.5	.0	1.8	.0	.0	.0	.5	.4	.0	.9	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.3	.2	.5	.0	.0	.0	.0	.4	.0	.4	
23-25	.0	.0	.0	.0	1.1	.0	1.1	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.3	.8	.0	1.1	.0	.0	.0	.0	.0	.0	.1	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	3.8	12.5	11.0	5.9	.2	33.6	.4	3.0	6.9	7.6	2.1	.2	20.1	99.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.9	2.6	.2	.0	.0	.0	3.7	
1-2	.7	7.3	2.1	.0	.0	.0	10.1	
3-4	.0	7.0	11.2	1.0	.0	.0	19.2	
5-6	.0	1.2	16.8	6.1	.3	.0	24.5	
7	.0	.2	6.5	6.6	1.0	.0	14.3	
8-9	.0	.2	1.2	8.2	1.6	.0	11.2	
10-11	.0	.2	1.0	3.8	.9	.2	6.1	
12	.0	.0	.0	2.1	1.2	.0	3.3	
13-16	.0	.0	.0	1.0	2.3	.0	3.3	
17-19	.0	.0	.0	.3	.0	.0	.3	
20-22	.0	.0	.0	.0	.7	.2	.9	
23-25	.0	.0	.0	.0	1.4	.0	1.4	
26-32	.0	.0	.0	.3	1.0	.2	1.6	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.6	18.7	39.0	29.7	10.5	.5	100.0	572

PERIOD: (OVER-ALL) 1949-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	2.7	3.2	2.0	1.2	.8	1.0	.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	105	5
6-7	.1	.5	2.9	3.4	4.7	1.8	2.5	.5	1.0	.8	.0	.1	.2	.0	.0	.0	.0	.0	.0	164	8
8-9	.0	.3	.3	2.0	5.9	4.3	4.5	2.4	2.9	.9	1.0	.1	.2	.0	.0	.0	.0	.0	.0	221	10
10-11	.0	.0	.0	.5	2.1	3.4	2.9	1.7	2.8	.6	1.0	.6	.6	.1	.0	.0	.0	.0	.0	144	12
12-13	.0	.0	.1	.1	.3	1.2	.9	1.6	3.2	.8	1.0	.1	.8	.0	.0	.0	.0	.0	.0	95	14
13-14	.0	.0	.0	.2	.3	.7	.7	.2	1.2	.1	.9	.5	1.6	.1	.0	.0	.0	.0	.0	58	18
14-15	.2	1.0	1.4	1.4	1.1	2.7	1.7	.3	.7	.8	.1	.0	.1	.0	.0	.0	.0	.0	.0	102	8
TOTAL	6	40	70	85	140	132	126	60	110	35	36	12	31	2	0	0	0	0	0	885	10
PCT	.7	4.5	7.9	9.6	15.8	14.9	14.2	6.8	12.4	4.0	4.1	1.4	3.5	.2	.0	.0	.0	.0	.0	100.0	

AUGUST

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1859-1970AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	4.0	3.9	.3	.0	.0	.0	.0	8.2	.4	2.5	.8	.0	.0	.0	88.3
NE	2.3	2.9	.0	.0	.0	.0	.0	5.2	1.5	1.0	.0	.0	.0	.0	92.4
E	4.6	4.4	.0	.0	.0	.0	.0	9.2	1.6	1.2	.0	.0	.0	.0	88.0
SE	5.6	5.0	.4	.0	.0	.0	.0	12.0	5.8	.0	1.7	.0	.0	.0	80.6
S	.9	6.7	1.7	.0	.0	.0	.0	9.4	5.7	.0	.0	.0	.0	.0	84.9
SW	3.1	10.3	2.2	.0	.0	.0	.0	15.5	6.0	.6	.0	.0	.3	.0	77.9
W	5.8	14.3	2.4	.0	.0	.0	.0	22.5	5.5	1.0	.0	.0	.3	.0	71.1
NW	5.8	6.0	.4	.0	.0	.0	.0	12.2	2.1	1.0	1.2	.0	.2	.0	83.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	6.3	.0	.0	.0	.0	6.3	6.3	.0	.0	.0	.0	.0	87.5
TOT PCT	4.2	8.8	1.5	.0	.0	.0	.0	14.5	4.2	.9	.3	.0	.2	.0	80.2
TOT OBS:	1838														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00003	4.0	11.2	1.3	.0	.0	.0	.0	16.6	3.5	.0	.4	.0	.2	.0	79.4
06009	3.7	5.4	.7	.0	.0	.0	.0	9.8	5.1	.2	.2	.0	.2	.0	84.6
12015	4.8	9.8	2.2	.0	.0	.0	.0	16.8	4.1	2.4	.2	.0	.2	.0	77.2
18021	4.2	7.1	2.0	.0	.0	.0	.0	13.2	3.9	.7	.5	.0	.0	.0	81.7
TOT PCT	4.2	8.6	1.6	.0	.0	.0	.0	14.4	4.1	.9	.3	.0	.2	.0	80.4
TOT OBS:	1879														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.6	3.7	4.9	1.6	.4	.0		11.2	14.1		10.5	15.3	8.1	12.9	11.4	13.2	8.1	13.4
NE	.5	3.1	2.7	.9	.3	.0		7.5	13.2		7.1	7.0	5.4	6.3	7.8	10.5	8.6	8.8
E	.3	1.7	1.1	.3	.1	.0		3.5	11.4		2.6	3.3	3.4	4.9	4.3	4.1	2.1	3.9
SE	.5	1.5	1.1	*	*	.0		3.1	9.4		2.9	3.9	3.2	2.0	3.3	3.5	3.5	2.5
S	.5	3.7	3.2	1.7	.2	.0		9.4	14.3		9.7	7.2	9.3	8.6	9.2	8.5	13.2	6.9
SW	.5	5.3	7.6	6.1	1.4	.1		21.0	18.1		21.3	16.8	22.4	19.0	21.0	18.1	25.7	20.0
W	.5	5.4	10.9	7.6	2.6	.1		27.0	19.3		27.2	28.7	33.8	26.3	27.4	25.1	22.0	21.7
NW	.6	4.6	7.1	3.5	.6	*		16.3	16.2		18.4	17.8	14.3	19.4	14.0	15.7	15.7	18.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.1							1.1	.0		.4	.0	.0	.6	1.7	1.8	1.3	3.9
TOT OBS	122	700	936	523	133	6	2420		16.3		495	243	312	174	541	171	304	180
TOT PCT	5.0	28.9	38.7	21.6	5.5	.2		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	06	12	18	21
N	2.1	5.4	2.6	1.0	.0			11.2	14.1		12.1	9.8	11.8	10.2	
NE	1.6	3.9	1.4	.5	*			7.5	13.2		7.0	5.8	8.4	8.6	
E	1.0	1.7	.5	.3	.0			3.5	11.4		2.8	4.0	4.2	2.7	
SE	1.1	1.7	.4	*	.0			3.1	9.4		3.2	2.8	3.3	3.1	
S	1.5	4.5	2.7	.6	.1			9.4	14.3		8.9	9.1	9.1	10.8	
SW	2.5	7.6	6.9	3.5	.5			21.0	18.1		19.8	21.1	20.3	23.6	
W	2.3	8.2	10.9	4.9	.7			27.0	19.3		27.7	31.1	26.9	21.8	
NW	2.0	6.1	6.5	1.6	.1			16.3	16.2		18.2	16.2	14.3	16.8	
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0	
CALM	1.1							1.1	.0		.3	.2	1.7	2.3	
TOT OBS	365	944	772	303	36	2420			16.3		798	486	712	484	
TOT PCT	15.1	39.0	31.9	12.5	1.5			100.0			100.0	100.0	100.0	100.0	

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PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1859-1970AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	.3	4.2	30.4	38.1	20.6	6.1	.4	16.3	100.0	738
06009	.2	2.3	23.9	43.2	23.3	7.0	.2	17.6	100.0	486
12015	1.7	4.8	30.2	37.4	20.9	4.9	.1	15.7	100.0	712
18021	2.3	4.1	30.0	37.0	22.5	3.9	.2	15.8	100.0	484
TOT	26	96	700	936	523	133	6	16.3		2420
PCT	1.1	4.0	28.9	38.7	21.6	5.5	.2	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.9	1.4	2.4	1.4	3.7	
NE	1.8	.9	2.4	1.4	4.9	
E	1.0	.8	1.3	.7	4.5	
SE	.4	.5	1.4	.8	5.6	
S	1.6	3.0	4.6	1.9	5.0	
SW	4.2	5.5	8.8	4.7	4.8	
W	4.7	5.9	11.7	5.4	5.1	
NW	4.2	3.3	4.5	2.2	4.3	
VAR	.0	.0	.0	.0	.0	
CALM	.4	.0	.1	.2	3.5	
TOT OBS	251	254	422	209	1136	4.8
TOT PCT	22.1	22.4	37.1	18.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+ ANY HGT	NH <5/8 TOTAL OBS
N	.0	.0	.1	.8	.9	.4	.3	.2	*	*	6.5
NE	.0	.0	*	.4	.9	1.0	.4	.2	.0	*	3.7
E	.0	.1	.0	.2	.3	.7	.2	.0	.0	.0	2.2
SE	.0	.0	.0	.4	.5	.7	.3	*	.0	.0	1.3
S	.0	.0	.0	.7	2.0	1.1	1.0	.2	.0	.0	6.1
SW	.0	.0	.0	1.7	3.9	3.1	1.4	.4	.0	.0	13.4
W	.0	.1	.4	3.1	5.3	2.5	1.7	1.0	.2	.1	13.4
NW	.0	.0	*	1.2	2.0	1.0	.3	.1	.1	.1	9.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.1	.1	.0	.1	.0	.0	.0	.4
TOT OBS	0	2	6	98	180	119	63	23	3	3	639
TOT PCT	.0	.2	.5	8.6	15.8	10.5	5.5	2.0	.3	.3	56.3

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.5	.5	.5	.5	.5	.5	.5	.5
>4000	2.3	2.5	2.5	2.5	2.5	2.5	2.5	2.5
>3500	6.9	7.9	7.9	7.9	8.0	8.0	8.0	8.0
>3000	15.7	18.4	18.4	18.4	18.5	18.5	18.5	18.5
>2500	27.8	33.6	34.2	34.2	34.3	34.3	34.3	34.3
>2000	32.8	41.5	42.8	42.8	42.8	42.8	42.8	42.8
>1500	33.1	42.2	43.3	43.3	43.4	43.4	43.4	43.4
>1000	33.2	42.3	43.5	43.5	43.5	43.5	43.5	43.5
>500	33.2	42.3	43.5	43.5	43.5	43.5	43.5	43.5
>0	383	488	501	501	502	502	502	502

TOTAL NUMBER OF OBS: 1153

PCT FREQ NH &lt;5/8: 56.5

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
7.5	11.1	13.2	11.8	11.8	9.1	10.4	11.4	13.7	1244

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1859-1970

AUGUST

AREA 0016 ESPERANCE BAY S  
35.4S 120.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
1/2<1	PCP	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1		
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1		
	TOT %	.1	.0	.0	.0	.0	*	*	.0	.0	.0	.1		
1<2	PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1		
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1		
	TOT %	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1		
2<5	PCP	.0	.0	.0	.1	.1	.2	.2	.2	.0	.0	.8		
	NO PCP	.0	.0	.0	.1	*	.1	.3	.1	.0	.0	.5		
	TOT %	.0	.0	.0	.1	.1	.3	.5	.2	.0	.0	1.3		
5<10	PCP	.6	.3	.3	.3	.6	2.2	4.2	.9	.0	.1	9.5		
	NO PCP	2.7	1.8	.4	.8	2.8	4.7	7.0	4.4	.0	.2	24.9		
	TOT %	3.3	2.2	.7	1.0	3.4	7.0	11.2	5.3	.0	.3	34.3		
10+	PCP	.2	.1	.0	.1	.3	.9	1.8	.8	.0	.0	4.1		
	NO PCP	6.2	4.9	2.7	2.1	6.4	13.3	14.4	9.4	.0	.6	50.0		
	TOT %	6.4	5.0	2.7	2.1	6.7	14.2	16.2	10.3	.0	.6	54.1		
TOT OBS														1838
TOT PCT														9.8 7.1 3.4 3.3 10.2 21.5 28.1 15.0 .0 .9 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.1	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
	TOT %	.1	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.1	.0	.1	.0	.0	.0	.3	
	11-21	.0	.0	.0	*	*	.2	.2	.1	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.1	.3	.1	.0	.0	.6	
	TOT %	.0	.0	.0	.1	.1	.3	.6	.3	.0	.0	1.3	
5<10	0-3	.2	.1	.2	.2	.1	.2	.2	.2	.0	.3	1.4	
	4-10	1.1	.9	.3	.4	1.1	.9	1.2	1.3	.0	.7	7.2	
	11-21	1.1	.6	.3	.4	1.3	2.1	4.0	2.4	.0	.0	12.2	
	22+	.8	.5	.0	*	.7	3.4	5.3	1.5	.0	.0	12.3	
	TOT %	3.1	2.0	.8	1.0	3.3	6.6	10.7	5.3	.0	.3	33.1	
10+	0-3	.3	.4	.1	.5	.3	.4	.4	.5	.0	.6	3.5	
	4-10	2.3	2.1	1.6	1.1	2.9	4.7	4.2	3.6	.0	.0	22.5	
	11-21	3.2	2.2	.8	.4	2.2	5.6	7.6	4.2	.0	.0	26.3	
	22+	1.0	.6	.4	*	1.2	3.5	4.3	2.1	.0	.0	13.1	
	TOT %	6.8	5.3	2.9	2.1	6.6	14.2	16.5	10.5	.0	.6	65.4	
TOT OBS													1953
TOT PCT													9.9 7.3 3.7 3.1 9.9 21.1 27.9 16.0 .0 .9 100.0

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1859-1970

AUGUST

AREA 0016 ESPERANCE BAY S  
35.45 120.6F

TABLE 10  
PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.4	.4	10.2	18.0	10.9	4.6	1.1	.0	.4	45.8	54.2	284
06009	.0	.3	.6	8.5	14.8	9.1	7.9	1.6	.3	.0	43.1	56.9	318
12015	.0	.0	.7	7.6	12.5	9.9	4.0	2.3	.3	.3	37.6	62.4	303
18021	.0	.0	.3	7.0	16.4	10.8	4.5	2.8	.3	.3	42.5	57.5	287
TOT	0	2	6	99	183	121	63	23	3	3	503	689	1192
PCT	.0	.2	.5	8.3	15.4	10.2	5.3	1.9	.3	.3	42.2	57.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	1.3	33.1	65.6	553
06009	.0	.2	.2	1.6	26.6	71.3	428
12015	.0	.0	.0	1.2	38.6	60.2	585
18021	.0	.2	.2	1.2	33.2	65.2	428
TOT	0	2	2	26	665	1299	1994
PCT	.0	.1	.1	1.3	33.4	65.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.7	11.9	35.4	52.7	277
06009	.0	1.3	11.0	33.4	55.5	308
12015	.0	.7	8.9	29.8	61.3	292
18021	.0	.4	8.7	35.9	55.4	276
TOT	0	9	117	387	649	1153
PCT	.0	.8	10.1	33.5	56.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
65/69	.0	.0	.0	.0	.4	.0	.2	.0	10	.7
60/64	.0	.0	.1	1.5	2.4	4.8	4.3	.9	194	13.0
55/59	.0	.0	.0	1.5	9.7	21.2	19.3	6.7	871	58.5
50/54	.0	.0	.0	2.1	6.2	6.2	8.3	3.2	388	26.0
45/49	.0	.0	.0	.1	.4	.3	.5	.3	26	1.7
TOTAL	0	0	3	62	286	487	486	166	1490	100.0
PCT	.0	.0	.2	4.2	19.2	32.7	32.6	11.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
70/74	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
65/69	.0	.0	.0	.0	.0	.0	.1	.3	.0	.0
60/64	.0	1.6	.4	.1	.1	.8	2.6	4.5	.0	.1
55/59	6.1	4.8	2.4	1.6	3.3	11.0	18.4	10.0	.0	.8
50/54	.9	.9	.5	1.2	6.2	8.8	6.4	1.1	.0	.1
45/49	.0	.0	.0	.0	.4	.7	.6	.0	.0	.0
TOTAL	10.2	7.4	3.3	3.0	10.0	21.3	28.1	15.8	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	70	66	62	57	51	48	46	56.6	730
06009	73	65	62	58	52	49	47	57.5	481
12015	68	64	62	56	51	49	47	56.3	713
18021	65	63	61	56	50	48	48	55.5	489
TOT	73	65	62	56	51	48	46	56.5	2413

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	3.8	14.6	31.6	36.8	13.2	79	418
06009	.0	7.3	27.5	32.4	26.0	6.7	74	327
12015	.0	3.3	17.2	34.7	33.0	11.9	78	430
18021	.0	4.1	19.0	32.4	32.4	12.2	78	343
TOT	0	68	290	498	492	170	77	1518



## AUGUST

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1859-1970

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	N FOG	WD FOG
11/13	.0	.0	.0	.1	.0	.1	.0	.1	3	.0	.2
9/10	.0	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
7/8	.0	.0	.0	.0	.1	.1	.0	.0	4	.0	.3
6	.0	.0	.0	.0	.1	.0	.0	.0	2	.0	.1
5	.0	.0	.0	.1	.4	.1	.0	.0	9	.0	.6
4	.0	.0	.1	.5	.6	.1	.0	.0	20	.0	1.3
3	.0	.0	.1	1.4	1.1	.1	.0	.0	41	.1	2.6
2	.0	.0	.2	3.0	2.0	.0	.0	.0	79	.1	5.2
1	.0	.0	.8	5.9	1.2	.0	.0	.0	119	.1	7.8
0	.0	.1	1.7	6.4	.5	.1	.0	.0	140	.0	9.2
-1	.0	.3	5.9	5.8	.7	.0	.0	.0	192	.0	12.7
-2	.0	.3	5.7	3.9	.5	.0	.0	.0	157	.1	10.3
-3	.0	.7	6.6	3.8	.3	.0	.0	.0	172	.0	11.4
-4	.0	1.1	5.7	3.3	.3	.0	.0	.0	158	.0	10.4
-5	.1	2.4	4.4	1.9	.1	.0	.0	.0	135	.1	8.9
-6	.1	1.7	2.5	1.8	.1	.0	.0	.0	95	.0	6.3
-7/-8	.3	2.5	3.4	1.0	.0	.0	.0	.0	108	.0	7.1
-9/-10	.1	.9	1.5	.6	.1	.0	.0	.0	47	.0	3.1
-11/-13	.2	.7	.7	.1	.0	.0	.0	.0	26	.0	1.7
-14/-16	.1	.2	.1	.0	.0	.0	.0	.0	6	.0	.4
TOTAL	13	103	598	604	123	12	1	1514	6	1508	
PCT	.9	10.8	39.5	39.9	8.1	.8	.0	100.0	.4	99.6	

PERIOD: (OVER-ALL) 1963-1970

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.4	.0	.2	.4	.0	.0	.0	.0	.6
1-2	.0	1.5	.1	.0	.0	1.6	.0	.2	1.5	.8	.0	.0	.0	2.4
3-4	.0	.9	1.6	.1	.0	2.6	.0	.0	.9	1.1	.0	.0	.0	2.0
5-6	.0	.0	2.2	.7	.0	2.8	.0	.0	.0	1.9	.6	.0	.0	2.3
7	.0	.0	.5	.0	.0	.5	.0	.0	.0	*	.3	.0	.0	.3
8-9	.0	.2	.0	.5	.2	.8	.0	.0	.0	.0	.4	.0	.0	.4
10-11	.0	.0	.2	.3	.3	.8	.0	.0	.3	.3	.2	.0	.0	.8
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.9	4.5	1.5	.5	.0	9.5	.3	2.8	4.1	1.3	.3	.0	8.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.7	.0	.0	.0	.8	.0	.4	.3	.0	.0	.0	.0	.7
1-2	.0	1.0	.5	.0	.0	1.5	.0	.0	1.0	.0	.0	.0	.0	1.0
3-4	.0	.7	.7	.0	.0	1.4	.0	.0	.2	*	.0	.0	.0	.3
5-6	.0	.0	.5	.2	.0	.7	.0	.0	.0	.9	.0	.0	.0	.9
7	.0	.0	.0	.4	.0	.4	.0	.0	.0	*	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.3	1.7	.7	.0	.0	4.8	.4	1.5	1.0	.1	.0	.0	2.9

PERIOD: (OVER-ALL) 1963-1970

AUGUST

AREA 0016, ESPERANCE BAY S  
35.45 120.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.3	.2	.0	.0	.0	.0		.5	.2	.7	.0	.0	.0	.0		.9
1-2	.2	1.8	.3	.0	.0	.0		2.3	.2	2.0	.5	.0	.0	.0		2.8
3-4	.0	1.3	1.3	.1	.0	.0		2.7	.0	2.3	4.0	.0	.0	.0		6.3
5-6	.0	.3	1.7	.8	.0	.0		2.8	.0	.7	2.3	1.1	.0	.0		4.0
7	.0	.0	.8	.3	.2	.0		1.2	.0	.0	2.8	1.3	.2	.0		4.3
8-9	.0	.0	.7	.2	.0	.0		.8	.0	.0	.6	1.3	.0	.0		2.0
10-11	.0	.0	.1	.2	.2	.0		.5	.0	.0	.3	.2	.0	.0		.4
12	.0	.0	.2	.0	.0	.0		.2	.0	.0	.2	.0	.0	.0		.3
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.3	.0		.3
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.2	.0		.2
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.5	3.6	5.0	1.5	.3	.0		10.9	.4	5.6	10.4	4.3	.8	.0		21.5

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.1	.5	.0	.0	.0	.0		.6	.4	.4	.0	.0	.0	.0		.8	
1-2	.1	1.3	.3	.0	.0	.0		1.8	.2	1.8	.0	.0	.0	.0		1.9	
3-4	.0	2.5	4.1	.3	.0	.0		7.0	.0	1.3	2.8	.2	.0	.0		4.3	
5-6	.0	.7	4.1	2.4	.2	.0		7.3	.0	.3	2.5	.2	.0	.0		3.0	
7	.0	.0	2.3	1.9	.3	.0		4.5	.0	.0	1.3	1.7	.2	.0		3.1	
8-9	.0	.0	1.0	.6	.0	.0		1.6	.0	.0	.6	1.0	.0	.0		1.6	
10-11	.0	.0	.3	.8	.1	.0		1.2	.0	.0	.3	.2	.0	.0		.3	
12	.0	.0	.0	.2	.2	.0		.3	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.7	.0		.7	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.2	.2	.0		.3	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.3	5.0	12.1	6.3	1.6	.0		25.3	.5	3.8	7.2	3.2	.3	.0		15.0	98.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	3.9	3.8	.0	.0	.0	.0	7.7	
1-2	.8	11.7	2.5	.0	.0	.0	15.0	
3-4	.0	9.9	15.5	.8	.0	.0	26.2	
5-6	.0	2.0	15.8	5.6	.2	.0	23.5	
7	.0	.0	7.6	5.2	.8	.0	14.1	
8-9	.0	.2	2.8	3.9	.2	.0	7.1	
10-11	.0	.0	1.0	1.8	1.0	.0	3.8	
12	.0	.0	.3	.3	.3	.0	1.0	
13-16	.0	.0	.0	.2	1.0	.0	1.2	
17-19	.0	.0	.0	.2	.3	.0	.5	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.8	27.5	45.4	18.6	3.8	.0	100.0	608

PERIOD: (OVER-ALL) 1949-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	WAVE HGT
<6	.6	2.4	4.9	3.1	1.6	.8	.1	.1	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	124	4
6-7	.0	.1	2.4	6.7	5.9	3.3	1.6	1.7	1.6	.5	.3	.2	.0	.0	.0	.0	.0	.0	.0	214	8
8-9	.0	.0	1.5	3.1	5.0	4.9	4.1	2.5	3.0	.2	.3	.2	.2	.0	.0	.0	.0	.0	.0	220	9
10-11	.0	.0	.6	1.6	2.3	1.8	2.7	2.3	3.1	.8	.3	.2	.2	.0	.0	.0	.0	.0	.0	140	10
12-13	.0	.0	.1	.2	1.4	1.4	1.6	.8	1.5	.2	.6	.3	.8	.1	.0	.0	.0	.0	.0	79	13
>13	.0	.0	.0	.0	.3	.2	.5	.1	1.5	.1	.2	.2	.6	.0	.0	.0	.0	.0	.0	33	16
INDET	1.0	.6	.9	.7	1.5	.7	1.3	.3	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	875	6
TOTAL	14	27	91	135	148	115	104	69	101	17	16	11	16	1	0	0	0	0	0	875	9
PCT	1.6	3.1	10.4	15.4	18.1	13.1	11.9	7.9	11.5	1.9	1.8	1.3	1.8	.1	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1855-1970

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA	
N	2.5	1.1	.0	.0	.0	.0	.0	3.6	2.1	1.7	.8	.0	1.3	.0	90.9	
NE	1.4	1.3	.2	.0	.0	.0	.0	2.8	.3	1.3	.0	.0	1.3	.0	94.4	
E	6.7	5.2	3.7	.0	.0	.0	.0	15.6	1.0	.0	2.0	.0	.0	.0	81.5	
SE	4.7	.0	1.1	.0	.0	.0	.0	5.8	4.1	.0	.0	.0	.0	.0	90.1	
S	1.2	4.3	3.4	.0	.0	.0	.0	8.8	4.4	.0	.9	.0	.6	.4	84.6	
SW	4.3	7.4	1.5	.0	.0	.0	.0	13.2	3.6	.9	.8	.0	.3	.1	81.7	
W	3.4	9.1	1.5	.0	.0	.0	.0	14.0	4.1	1.5	1.1	.0	.2	.0	80.0	
NW	4.3	5.0	.6	.0	.0	.0	.0	9.9	1.6	1.4	1.0	.0	.2	.0	86.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	10.5	.0	.0	.0	.0	10.5	.0	.0	.0	.0	.0	.0	89.5	
TOT PCT	3.5	5.6	1.6	.0	.0	.0	.0	10.6	2.9	1.1	.9	.0	.4	.1	84.5	
TOT DBS:	1731															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHR	DRIZ	FRIG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00603	3.8	6.5	1.6	.0	.0	.0	.0	11.9	2.4	.6	.8	.0	.2	.0	84.4
06609	2.3	4.9	2.1	.0	.0	.0	.0	9.3	3.1	.0	1.3	.0	.3	.3	85.8
12615	3.8	5.1	1.5	.0	.0	.0	.0	10.4	3.2	1.9	1.3	.0	.4	.0	83.5
18621	3.8	5.6	1.5	.0	.0	.0	.0	10.9	3.3	1.8	.5	.0	.8	.0	83.8
TOT PCT	3.5	5.6	1.6	.0	.0	.0	.0	10.7	3.0	1.1	1.0	.0	.4	.1	84.3
TOT DBS:	1761														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	2.9	2.9	1.1	.1	.0		7.5	13.5		9.7	11.3	5.4	4.5	4.8	8.8	6.7	11.1
NE	.4	3.5	4.3	1.5	.1	.0		9.8	14.0		8.3	9.7	9.6	9.1	9.5	12.5	11.0	11.4
E	.4	2.2	2.9	.6	.0	.0		6.0	12.2		4.9	4.9	5.9	7.8	8.2	4.3	6.8	3.6
SE	.2	2.1	1.6	.5	.1	*		4.5	12.8		4.6	2.6	6.5	3.6	6.0	3.4	3.6	3.0
S	.3	3.9	3.8	1.8	.4	*		10.3	14.8		8.5	9.5	8.8	8.1	11.1	14.0	12.4	11.1
SW	.2	4.9	9.1	4.4	1.8	*		20.5	18.3		20.1	17.1	23.8	23.7	17.6	20.7	21.3	24.4
W	.6	6.0	11.4	6.4	2.0	.2		26.5	18.1		25.5	25.7	25.2	29.2	30.8	21.6	26.1	24.1
NW	.4	4.1	6.1	2.2	.4	.0		13.1	15.2		17.3	16.7	14.2	11.4	10.1	11.0	11.1	9.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.7							1.7	.0		1.0	2.5	.6	2.6	1.9	3.7	1.4	1.8
TOT DBS	112	689	986	428	112	7	2334		15.8		489	244	316	154	486	164	314	167
TOT PCT	4.8	29.5	42.2	18.3	4.8	.3		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40						00	06	12	18	
N	1.6	3.4	1.9	.5	*		7.5	13.5		10.2	5.1	5.8	7.9	
NE	1.6	4.7	2.8	.7	*		9.8	14.0		8.8	9.4	10.2	11.1	
E	1.3	3.1	1.6	*	.0		6.0	12.2		4.9	6.5	7.2	5.7	
SE	1.1	2.2	1.0	.1	.1		4.5	12.8		3.9	5.5	5.3	3.4	
S	1.8	5.0	2.2	1.1	.2		10.3	14.8		8.9	8.6	11.8	12.0	
SW	1.6	8.0	7.0	3.1	.7		20.5	18.3		19.1	23.8	18.4	22.3	
W	2.6	10.7	8.5	4.1	.7		26.5	18.1		25.5	26.5	28.5	25.4	
NW	1.5	6.4	3.9	1.2	.1		13.1	15.2		17.1	13.3	10.3	10.6	
VAR	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	
CALM	1.7						1.7	.0		1.5	1.3	2.3	1.7	
TOT DBS	346	1017	671	256	44	2334		15.8		733	470	650	481	
TOT PCT	14.8	43.6	28.7	11.0	1.9		100.0			100.0	100.0	100.0	100.0	

## SEPTEMBER

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1855-1970

AREA 0016 ESPERANCE BAY S  
35.4S 120.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	1.5	2.2	27.3	43.8	20.5	4.6	.1	16.4	100.0	733
00009	1.3	3.0	26.4	45.7	17.4	5.1	.4	15.9	100.0	470
12015	2.3	3.8	31.8	38.8	16.9	5.7	.6	15.6	100.0	650
18021	1.7	2.9	32.8	41.2	17.9	3.5	.0	15.0	100.0	481
TOT	40	72	689	986	428	112	7	15.8		2334
PCT	1.7	3.1	29.5	42.2	18.3	4.8	.3	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.8	.7	1.4	.8		3.5
NE	5.0	1.6	1.9	1.6		3.2
E	1.2	.9	2.6	1.2		5.1
SE	1.0	1.3	2.8	1.1		5.3
S	1.5	2.0	4.1	2.0		5.2
SW	3.5	4.8	10.1	3.1		5.0
W	7.1	4.5	11.5	4.1		4.6
NW	3.4	2.9	4.5	1.7		4.3
VAR	.0	.0	.0	.0		.0
CALM	.5	.0	.4	.1		3.3
TOT OBS	294	212	443	178	1127	4.5
TOT PCT	26.1	18.8	39.3	15.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.4	.7	.1	.1	.2	.1	.1	.1	4.1
.0	.0	.0	.2	1.1	.6	.3	.1	.1	.1	.1	7.6
.0	.1	.0	.5	1.0	.7	.4	.2	.0	.0	.1	3.0
.1	.0	.0	.9	1.6	.3	.3	.0	.0	.0	.0	3.0
.1	.0	.0	.8	3.0	.7	.6	.2	.0	.0	.0	4.2
*	.0	.4	1.7	3.9	2.3	1.4	.3	.0	.2	.2	11.5
.0	.0	.3	1.8	5.0	2.5	1.5	.5	*	.0	.0	15.6
.0	.0	*	.6	2.1	.9	.6	.2	.2	.1	.1	7.9
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.9
2	1	9	78	208	91	58	19	4	6	651	1127
.2	.1	.8	6.9	18.5	8.1	5.1	1.7	.4	.5	57.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.7	.8	.9	.9	.9	.9	.9	.9
>4000	2.3	2.5	2.5	2.5	2.5	2.5	2.5	2.5
>3500	6.1	7.2	7.6	7.7	7.7	7.7	7.7	7.7
>3000	12.8	15.0	15.7	15.8	15.8	15.8	15.8	15.8
>2500	28.5	32.8	33.9	34.1	34.1	34.1	34.1	34.1
>2000	33.4	39.5	40.9	41.2	41.2	41.2	41.2	41.2
>1500	33.7	40.2	41.7	41.9	41.9	41.9	41.9	41.9
>1000	33.7	40.2	41.7	42.0	42.0	42.0	42.0	42.0
>500	33.7	40.3	41.9	42.2	42.2	42.2	42.2	42.2
TOTAL	385	460	478	482	482	482	482	482

TOTAL NUMBER OF OBS: 1142

PCT FREQ NH &lt;5/8: 57.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
11.9	12.6	11.7	11.9	9.7	9.3	10.0	10.5	12.4	.1	1254

SEPTEMBER

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1855-1970

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	*	*	.1	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.0	*	*	.1	.0	.0	.0	.0	.1
1/2<1	PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	NO PCP	*	.0	.0	.0	*	*	.1	.1	.0	.0	.0	.3
	TOT %	*	.0	.0	.0	.1	*	.1	.1	.0	.0	.0	.3
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.1	.1	.1	.0	.1	.1	.1	*	.0	.0	.0	.5
	TOT %	.1	.1	.1	.0	.1	.1	.1	*	.0	.0	.0	.5
2<5	PCP	.0	*	.2	.1	.1	.1	.2	.2	.0	.0	.0	.9
	NO PCP	.0	.0	*	.1	.0	.2	.2	.1	.0	.1	.7	.7
	TOT %	.0	*	.2	.2	.1	.3	.4	.3	.0	.1	1.6	1.6
5<10	PCP	.2	.1	.4	.1	.4	1.5	2.5	.9	.0	.0	6.1	6.1
	NO PCP	1.9	1.9	.8	1.0	1.8	4.2	6.1	2.3	.0	.1	20.3	20.3
	TOT %	2.0	2.0	1.2	1.1	2.3	5.7	8.6	3.2	.0	.1	26.3	26.3
10+	PCP	.1	.1	.3	.1	.3	1.1	1.1	.3	.0	.1	3.6	3.6
	NO PCP	4.6	7.0	3.9	3.8	7.0	13.3	17.0	10.0	.0	.8	67.5	67.5
	TOT %	4.7	7.1	4.3	3.9	7.4	14.4	18.1	10.3	.0	.9	71.1	71.1
TOT OBS													1731
TOT PCT		6.8	9.2	5.8	5.2	9.8	20.6	27.4	14.0	.0	1.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	*	*	.1	.0	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	4-10	*	.0	.0	.0	*	*	.1	.1	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	*	.0	.0	.0	.1	*	.1	.1	.0	.0	.3	.3
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	*	.1	.0	.0	.0	.0	.0	*	.0	.0	.1	.1
	11-21	.1	.0	.1	.0	.1	.0	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	.2
	TOT %	.1	.1	.1	.0	.1	.1	.1	*	.0	.0	.5	.5
2<5	0-3	*	.0	.0	.0	.0	.0	.0	*	.0	.1	.1	.1
	4-10	.1	.1	.0	.1	.0	.0	.0	.1	.0	.0	.3	.3
	11-21	.0	.1	.3	.1	.0	.1	.1	.1	.0	.0	.8	.8
	22+	*	*	.1	.1	.1	.2	.3	.3	.0	.0	1.0	1.0
	TOT %	.1	.2	.3	.2	.1	.3	.4	.5	.0	.1	2.2	2.2
5<10	0-3	.1	.1	.1	.1	.1	.1	.2	.1	.0	.1	1.0	1.0
	4-10	.8	.9	.4	.3	.6	.9	.8	.0	.0	.0	5.5	5.5
	11-21	.6	.8	.6	.5	.5	2.6	3.2	1.2	.0	.0	9.9	9.9
	22+	.4	.2	.1	.1	.9	1.9	3.7	.9	.0	.0	8.2	8.2
	TOT %	1.9	1.9	1.2	1.1	2.1	5.4	8.0	3.0	.0	.1	24.7	24.7
10+	0-3	.3	.2	.3	.1	*	.2	.4	.3	.0	1.1	3.0	3.0
	4-10	2.2	2.3	1.7	2.0	3.4	4.1	5.0	3.4	.0	.0	24.2	24.2
	11-21	1.9	3.6	2.2	1.4	3.5	6.5	8.6	5.0	.0	.0	32.7	32.7
	22+	.5	1.0	.3	.2	.9	4.0	4.2	1.2	.0	.0	12.4	12.4
	TOT %	5.0	7.2	4.5	3.7	7.8	14.7	18.3	10.0	.0	1.1	72.3	72.3
TOT OBS													1892
TOT PCT		7.1	9.4	6.1	5.0	10.4	20.5	26.9	13.6	.0	1.2	100.0	



## SEPTEMBER

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1855-1970AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.3	1.0	10.7	20.5	11.7	5.2	.6	.6	1.0	51.6	48.4	308
06009	.0	.0	.3	7.0	15.9	6.3	5.4	1.3	.3	.0	36.5	63.5	315
12015	.7	.0	.7	4.5	13.1	6.6	3.4	2.8	.0	.3	32.1	67.9	290
18021	.0	.0	1.0	4.4	19.9	5.7	5.7	1.7	.3	.7	39.5	60.5	296
TOT	2	1	9	81	210	92	60	19	4	6	484	725	1209
PCT	.2	.1	.7	6.7	17.4	7.6	5.0	1.6	.3	.5	40.0	60.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.2	.7	1.8	25.0	72.3	556
06009	.2	.5	.2	3.1	17.6	78.3	415
12015	.2	.4	.4	2.3	32.6	64.2	525
18021	.0	.2	.7	1.4	22.8	74.9	426
TOT	2	6	10	41	480	1383	1922
PCT	.1	.3	.5	2.1	25.0	72.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50VD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	1.4	14.4	40.4	45.2	292
06009	.0	.3	9.8	29.0	61.3	297
12015	.7	1.5	8.0	26.3	65.7	274
18021	.0	1.1	6.5	35.5	58.1	279
TOT	2	12	111	375	656	1142
PCT	.2	1.1	9.7	32.8	57.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
65/69	.0	.0	.0	.0	.3	.5	.1	.6	22	1.5
60/64	.0	.0	.2	.3	2.8	6.1	6.2	1.3	245	17.0
55/59	.0	.0	.1	1.7	8.8	18.9	19.5	8.7	830	57.6
50/54	.0	.0	.1	1.8	7.4	6.0	5.3	2.4	330	22.9
45/49	.0	.0	.0	.1	.7	.2	.3	.1	14	1.0
TOTAL	0	0	5	56	282	456	454	189	1442	100.0
PCT	.0	.0	.3	3.9	19.6	31.6	31.5	13.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
.2	.1	.2	.*	.1	.1	.4	.4	.0	.1
1.9	2.5	1.0	.1	.4	2.0	5.1	3.9	.0	.1
4.2	5.8	4.1	3.0	3.5	10.5	18.0	7.9	.0	.6
.6	.4	.7	2.0	5.4	8.0	3.8	1.6	.0	.3
.0	.0	.0	.1	.3	.4	.1	.1	.0	.0
6.9	8.9	6.0	5.3	9.7	21.0	27.3	13.8	.0	1.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	70	66	63	57	51	49	46	57.1	721
06009	71	67	63	58	52	50	47	56.0	464
12015	69	66	62	56	51	49	48	56.3	647
18021	65	62	60	56	50	49	47	55.7	485
TOT	71	66	62	57	51	49	46	56.8	2317

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	3.9	17.6	29.9	29.7	18.9	79	408
06009	.0	8.8	27.2	36.3	22.1	5.7	74	331
12015	.0	2.8	16.6	33.2	33.7	13.8	79	392
18021	.0	2.1	18.2	27.7	40.2	11.9	79	336
TOT	0	63	288	465	461	190	78	1467

SEPTEMBER

PERIOD: (PRIMARY) 1913-1970  
(OVER-ALL) 1855-1970

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	TOT	M FOG	WC FOG
9/10	.0	.0	.1	.0	.1	.2	6	.0	.4
7/6	.0	.0	.0	.1	.3	.2	9	.1	.6
6	.0	.0	.0	.1	.3	.1	8	.0	.6
5	.0	.0	.0	.2	.8	.2	17	.0	1.2
4	.0	.0	.1	.6	1.3	.1	30	.1	2.0
3	.0	.0	.2	2.0	1.3	.1	51	.1	3.5
2	.0	.0	.4	5.0	1.7	.1	103	.1	7.1
1	.0	.0	.6	7.1	1.3	.0	128	.1	8.8
0	.0	.2	2.4	9.9	1.1	.1	197	.1	13.7
-1	.0	.1	4.2	6.5	.8	.0	165	.2	11.3
-2	.0	.3	5.5	4.4	.6	.0	153	.1	10.6
-3	.0	.5	5.8	4.8	.1	.0	160	.0	11.2
-4	.0	1.4	4.9	2.2	.3	.0	125	.0	8.7
-5	.0	2.0	3.8	1.1	.0	.0	98	.1	6.8
-6	.1	2.0	1.6	.7	.1	.0	64	.0	4.5
-7/-8	.1	1.9	2.1	.7	.1	.0	70	.1	4.8
-9/-10	.1	.5	1.0	.1	.0	.0	25	.0	1.7
-11/-13	.1	.4	.7	.0	.0	.0	18	.1	1.2
-14/-16	.1	.0	.1	.0	.0	.0	3	.0	.2
TOTAL	7		480		143		1430	.5	141*
PCT	.5	132	650	18			100.0	1.0	99.0
		9.2	33.6	45.5	10.0	1.3			

PERIOD: (OVER-ALL) 1963-1970

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.1
1-2	.0	1.4	.5	.0	.0	.0	1.9	.0	2.5	1.1	.0	.0	.0	.0	3.5	.0
3-4	.0	.5	.6	.0	.0	.0	1.1	.0	1.1	1.5	.0	.0	.0	.0	2.6	.0
5-6	.0	.1	.8	.1	.0	.0	1.1	.0	.0	.8	.2	.0	.0	.0	1.0	.0
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.6	.4	.0	.0	.0	1.1	.0
8-9	.0	.0	.0	.9	.0	.0	.9	.0	.0	.0	.2	.0	.0	.0	.2	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.1	2.0	1.0	.0	.0	5.2	.0	3.6	4.4	1.1	.0	.0	.0	9.1	.0

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.1	.0	.0	.0	.0	.1	.1	.1	.2	.0	.0	.0	.0	.3	.0
1-2	.0	1.1	.3	.0	.0	.0	1.5	.0	2.1	.5	.0	.0	.0	.0	2.6	.0
3-4	.0	.9	1.2	.0	.0	.0	2.1	.0	.8	1.3	.0	.0	.0	.0	2.2	.0
5-6	.0	.1	.4	.1	.0	.0	.7	.0	.4	1.6	.3	.0	.0	.0	2.3	.0
7	.0	.0	.4	.0	.0	.0	.4	.0	.0	.5	.1	.0	.0	.0	.6	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.2	2.4	.1	.0	.0	4.9	.2	3.5	4.0	.4	.0	.0	.0	8.2	.0

PERIOD: (OVER-ALL) 1949-1970

SEPTEMBER

AREA 0016 ESPERANCE BAY S  
35.4S 120.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S															SW															TOTAL PCT
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT																
<1	.1	.0	.0	.0	.0	.0	.7	.1	.2	.0	.0	.0	.0	.0	.3															
1-2	.0	3.1	.6	.0	.0	.0	3.7	.0	2.8	.9	.0	.0	.0	.0	3.7															
3-4	.0	1.4	1.9	.1	.0	.0	3.5	.0	1.6	3.7	.6	.0	.0	.0	6.0															
5-6	.0	.3	1.8	.1	.0	.0	2.3	.0	#	3.0	.6	.1	.0	.0	3.8															
7	.0	.0	.4	.1	.0	.0	.5	.0	.0	1.1	.7	.2	.0	.0	2.1															
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.6	.4	.0	.0	1.3															
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
12	.0	.0	.0	.1	.0	.0	.1	.0	.1	.0	.2	.0	.0	.0	.3															
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3															
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1															
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5															
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1															
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
TOT PCT	.1	5.4	4.7	.5	.0	.0	10.7	.1	4.8	9.0	3.2	1.5	.0	.0	18.6															

W															NW															TOTAL PCT
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT																
<1	.1	1.1	.0	.0	.0	.0	1.2	.1	.5	.0	.0	.0	.0	.0	.6															
1-2	.0	4.0	2.9	.0	.0	.0	6.9	.1	2.4	1.0	.0	.0	.0	.0	3.5															
3-4	.1	2.0	4.0	.6	.0	.0	6.7	.0	1.3	2.5	.3	.0	.0	.0	4.1															
5-6	.0	.6	6.0	.6	.1	.0	7.3	.0	.3	2.4	.4	.1	.0	.0	3.3															
7	.0	.6	1.0	1.6	.4	.0	3.6	.0	.0	.9	.5	.1	.0	.0	1.5															
8-9	.0	.1	.0	.9	.0	.0	1.0	.0	.0	.3	.2	.0	.0	.0	.5															
10-11	.0	.0	.0	.4	.1	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0															
12	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0															
13-16	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0															
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
20-22	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0															
23-25	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0															
26-32	.0	.0	.0	.0	.1	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0															
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0															
TOT PCT	.3	8.4	14.0	4.2	1.1	.1	28.1	.3	4.5	7.1	1.4	.3	.0	.0	13.6															

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	3.0	2.7	.1	.0	.0	.0	5.8	
1-2	.3	19.2	7.7	.0	.0	.0	27.2	
3-4	.1	9.8	16.6	1.6	.0	.0	28.1	
5-6	.0	1.9	16.7	2.5	.4	.0	21.6	
7	.0	.6	5.0	3.6	.7	.0	9.9	
8-9	.0	.1	.7	2.7	.4	.0	4.0	
10-11	.0	.0	.0	.4	.1	.0	.6	
12	.0	.1	.3	.3	.0	.0	.7	
13-16	.0	.0	.0	.7	.0	.0	.7	
17-19	.0	.0	.0	.1	.0	.0	.1	
20-22	.0	.0	.0	.0	.1	.0	.1	
23-25	.0	.0	.0	.0	.6	.0	.6	
26-32	.0	.0	.0	.0	.3	.1	.4	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.4	34.5	47.2	12.0	2.8	.1	100.0	676

PERIOD: (OVER-ALL) 1949-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.1	2.0	4.1	3.2	.9	1.0	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	115	4
6-7	.0	.2	1.4	4.8	5.4	2.8	1.3	1.3	.4	.1	.0	.2	.4	.0	.0	.0	.0	.0	.0	172	8
8-9	.0	.1	1.2	3.2	6.0	6.2	3.8	1.9	1.8	.3	.3	.1	.1	.0	.0	.0	.0	.0	.0	235	8
10-11	.0	.3	.3	1.5	3.3	4.5	3.8	2.4	2.9	.9	.6	.3	.1	.0	.0	.0	.0	.0	.0	197	10
12-13	.0	.0	.2	.6	.6	1.3	1.8	1.3	2.3	.9	.6	.1	.3	.0	.0	.0	.0	.0	.0	95	12
>13	.0	.0	.0	.1	.2	.5	.3	1.4	1.1	.1	.0	.4	.5	.0	.0	.0	.0	.0	.0	44	14
INDET	.4	1.4	.4	1.0	1.2	1.8	1.1	1.1	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	88	7
TOTAL	5	38	72	135	165	169	117	88	91	21	15	11	14	0	0	0	0	0	0	941	9
PCT	.5	4.0	7.7	14.3	17.5	18.0	12.4	9.4	9.7	2.2	1.6	1.2	1.5	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1854-1971

OCTOBER

AREA 0016 ESPERANCE BAY S  
35.35 120.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								NO SIG WFA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WFA	
N	1.3	2.5	.7	.0	.0	.0	.0	4.5	.5	1.8	.7	.0	.4	.0	.0	92.8
NE	2.4	1.1	1.0	.0	.0	.0	.0	3.7	.5	1.2	.7	.0	.4	.0	.0	94.1
E	4.5	1.9	3.2	.0	.0	.0	.0	9.6	1.1	1.9	1.2	.0	1.1	.0	.0	85.2
SE	4.6	2.3	2.6	.0	.0	.0	.0	9.5	2.3	1.2	1.4	.0	3.0	.0	.0	83.5
S	3.5	7.3	2.4	.0	.0	.0	.0	13.3	9.1	1.3	.5	.0	.3	.0	.0	82.1
SW	2.8	13.3	.7	.0	.0	.0	.3	17.0	2.4	.5	.2	.2	.2	.0	.0	79.5
W	5.2	11.2	2.6	.0	.0	.0	.1	19.0	1.9	1.3	.4	.2	.0	.0	.0	77.6
NW	2.4	5.5	.3	.0	.0	.0	.0	8.1	2.9	1.6	1.8	.0	.3	.0	.0	85.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.7	.0	4.3	.0	.0	87.0
TOT PCT	3.5	7.3	1.7	.0	.0	.0	.1	12.5	1.9	1.2	.8	.1	.5	.0	.0	83.4
TOT OBS:	2114															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								NO SIG WFA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WFA	
0000	3.9	8.5	.7	.0	.0	.0	.2	13.3	1.3	.2	.8	.0	.7	.0	.0	83.9
0600	1.7	5.9	.9	.0	.0	.0	.0	8.3	2.8	.0	1.3	.0	.4	.0	.0	87.1
1200	3.2	8.0	2.2	.0	.0	.0	.2	13.6	1.1	2.2	.6	.0	.5	.0	.0	82.8
1800	4.6	6.1	2.9	.0	.0	.0	.0	13.5	2.7	2.5	.4	.4	.2	.0	.0	81.1
TOT PCT	3.4	7.3	1.7	.0	.0	.0	.1	12.3	1.9	1.2	.8	.1	.5	.0	.0	83.6
TOT OBS:	2171															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.3	3.5	2.7	.8	.0	.0		7.3	12.2		10.4	10.6	5.5	7.2	3.8	6.5	6.9	7.7
NE	.3	3.5	6.4	1.5	.1	.0		11.9	14.4		12.2	9.6	15.3	7.7	11.3	11.3	14.9	11.4
E	.4	3.4	3.9	.4	.0	.0		8.2	12.3		6.3	5.7	8.5	5.5	11.9	9.9	9.4	6.0
SE	.4	2.5	1.6	.3	.2	.0		5.1	12.0		5.1	4.3	5.3	3.7	5.2	5.0	6.2	5.5
S	.6	5.7	5.3	1.8	.4	.1		13.8	14.0		15.2	14.9	13.6	12.8	14.1	12.5	12.5	12.8
SW	.6	5.6	7.9	5.3	1.4	.3		21.0	17.9		17.8	16.9	20.6	25.5	25.0	19.7	22.5	19.7
W	.7	7.2	7.9	4.9	1.7	.1		22.4	16.7		21.1	24.3	23.4	27.2	21.4	24.4	18.5	23.5
NW	.4	3.4	3.6	1.3	.2	.0		8.9	13.4		10.9	12.6	6.4	9.4	6.1	8.7	7.4	10.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.5							1.5	.0		1.2	1.1	1.5	.9	1.2	2.0	1.8	2.7
TOT OBS	152	1023	1155	479	118	14	2941		14.9		579	348	337	228	608	246	336	259
TOT PCT	5.2	34.8	39.3	16.3	4.0	.5		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	1.6	3.9	1.6	.2	.0		7.3	12.2	10.4	6.2	4.6	7.3	
NE	1.5	5.6	4.3	.4	.0		11.9	14.4	11.2	12.2	11.3	13.4	
E	1.7	4.1	2.3	.1	.0		8.2	12.3	6.0	7.3	11.3	7.9	
SE	1.2	2.8	.7	.3	.1		5.1	12.0	4.8	4.7	5.2	5.9	
S	2.6	6.5	3.4	.9	.4		13.8	14.0	15.1	13.3	13.6	12.6	
SW	2.3	7.8	7.1	3.0	.7		21.0	17.9	17.5	22.6	23.5	21.3	
W	3.5	8.6	6.6	3.4	.4		22.4	16.7	22.3	24.9	22.2	20.6	
NW	1.8	4.2	2.3	.5	.0		8.9	13.4	11.5	7.6	6.9	8.8	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	1.5						1.5	.0	1.2	1.2	1.4	2.2	
TOT OBS	222	1278	837	259	45	2941		14.9	927	565	854	595	
TOT PCT	17.7	43.5	28.5	8.8	1.5		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1854-1971

OCTOBER

AREA 0016 ESPERANCE BAY S  
35.35 120.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00603	1.2	3.6	32.9	41.1	16.4	4.4	.4	15.1	100.0	927
06609	1.2	3.0	32.4	39.8	18.8	4.4	.4	15.7	100.0	565
12615	1.4	3.9	37.6	37.6	15.3	3.7	.5	14.4	100.0	854
18621	2.2	4.4	36.0	38.3	15.1	3.4	.7	14.3	100.0	595
TOT	43	109	1023	1155	479	118	14	14.9		2941
PCT	1.5	3.7	34.8	39.3	16.3	4.0	.5			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 6	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	2.7	.7	2.7	.8	4.1	4.1
NE	5.0	2.5	4.7	1.9	4.0	4.0
E	2.0	1.0	3.9	2.9	5.4	5.4
SE	.6	.9	2.5	2.0	5.8	5.8
S	1.8	2.8	6.1	4.0	5.5	5.5
SW	4.1	4.1	9.0	4.1	5.0	5.0
W	4.9	3.0	7.3	3.3	4.6	4.6
NW	2.6	.9	2.4	1.6	4.4	4.4
VAR	.0	.0	.0	.0	.0	.0
CALM	.7	.2	.2	.2	3.5	3.5
TOT OBS	493	193	467	250	1203	4.8
TOT PCT	24.4	16.0	38.8	20.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

FREQUENCY OF WINDS BY WIND DIRECTION											
000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	LBS
.0	.0	.0	.4	.9	.3	.4	.3	.0	.1	4.6	
.0	.0	.0	.9	1.5	1.1	.3	.2	.0	.1	9.9	
.0	.0	.2	.5	2.4	.9	.7	.6	.1	.2	4.1	
.0	.0	.1	.8	1.3	.5	.3	.3	.2	.0	2.6	
.0	.0	.1	1.6	2.9	2.0	1.2	.2	.0	.4	6.4	
.0	.0	.1	2.0	4.2	2.0	1.2	.6	.0	.1	11.2	
.1	.0	.4	1.3	2.5	1.6	.8	.7	.2	.1	10.8	
.1	.0	.1	.2	1.4	.5	.3	.2	.0	.1	4.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.1	.1	.1	.1	.0	.0	.0	.1	.9	
2	0	12	94	206	109	63	38	5	12	662	1203
.2	.0	1.0	7.8	17.1	9.1	5.2	3.2	.4	1.0	55.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>A500	1.3	1.5	1.5	1.5	1.5	1.5	1.5	1.5
>5000	3.8	4.6	4.6	4.6	4.6	4.6	4.6	4.6
>3500	7.8	9.8	9.8	9.8	9.8	9.8	9.8	9.8
>2000	14.4	18.3	18.7	18.7	18.7	18.7	18.7	18.7
>1000	28.0	34.1	35.4	35.5	35.5	35.5	35.5	35.6
>A00	32.9	41.4	43.3	43.3	43.3	43.3	43.3	43.4
>700	33.4	42.2	44.2	44.3	44.3	44.3	44.3	44.4
>150	33.4	42.2	44.2	44.3	44.3	44.3	44.3	44.4
>0	33.5	42.4	44.4	44.5	44.5	44.5	44.5	44.6
TOTAL	412	521	546	547	547	547	547	548

TOTAL NUMBER OF OBS: 1230

PCT FREQ NH <5/8: 55.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
	12.0	10.8	11.4	10.7	9.3	6.6	9.8	12.9	16.4	.1	1370



PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1854-1971

OCTOBER

AREA 0016 ESPERANCE BAY S  
35.35 120.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	NO PCP	.0	.0	.0	*	.1	.0	*	.0	.0	.0	.1	
	TOT %	.0	.0	.0	*	.1	*	*	.0	.0	.0	.2	
1/2<1	PCP	.0	.0	*	.0	.0	.0	*	.0	.0	.0	.1	
	NO PCP	*	*	.1	*	.0	.1	*	.1	.0	.0	.4	
	TOT %	*	*	.1	*	.0	.1	*	.1	.0	.0	.5	
1<2	PCP	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	NO PCP	*	.0	.0	.1	.0	.0	*	.0	.0	*	.2	
	TOT %	*	.0	.0	.1	*	*	.0	*	.0	*	.3	
2<5	PCP	*	.0	.1	.1	.1	.1	.2	.1	.0	.0	.8	
	NO PCP	.0	*	.0	.1	.1	.3	*	.0	.0	.0	.6	
	TOT %	*	*	.1	.2	.2	.5	.3	.1	.0	.0	1.4	
5<10	PCP	.1	.4	.6	.4	1.3	2.9	3.3	.3	.0	.0	9.3	
	NO PCP	2.1	3.2	1.8	1.1	4.2	6.1	7.2	2.4	.0	.1	28.1	
	TOT %	2.2	3.5	2.4	1.5	5.5	9.0	10.5	2.7	.0	.1	37.4	
10+	PCP	.1	.1	.1	.0	.5	.6	.7	.1	.0	.0	2.3	
	NO PCP	4.2	8.7	6.1	3.3	7.8	11.4	10.7	4.9	.0	.9	57.9	
	TOT %	4.3	8.8	6.2	3.3	8.3	12.1	11.4	5.0	.0	.9	60.2	
TOT OBS													
TOT PCT													
		6.6	12.4	8.8	5.1	14.0	21.7	22.2	8.0	.0	1.1	100.0	2114

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	*	.0	*	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	*	
	22+	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	TOT %	.0	.0	.0	*	.1	*	*	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	*	.0	.0	.0	.0	.0	*	*	.0	.0	*	
	11-21	.0	.0	*	*	.0	*	*	.1	.0	.0	.3	
	22+	*	*	.1	.0	.0	*	.0	*	.0	.0	.2	
	TOT %	*	*	.1	*	.0	.1	*	.1	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	*	.0	.0	*	*	.0	.0	*	.0	.0	.1	
	22+	.0	.0	.0	*	.0	*	.0	.0	.0	.0	.1	
	TOT %	*	.0	.0	.1	*	*	.0	*	.0	*	.3	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	*	*	*	.1	.1	*	.0	.0	.2	
	11-21	*	*	.1	*	.0	.1	*	.1	.0	.0	.4	
	22+	.0	.0	.0	.1	.1	.3	.2	.0	.0	.0	.7	
	TOT %	*	*	.1	.1	.1	.4	.2	.1	.0	.0	1.3	
5<10	0-3	*	.1	.2	.1	.2	.1	.3	.1	.0	.1	1.3	
	4-10	1.0	1.2	1.1	.5	1.8	1.6	2.3	1.1	.0	.0	10.7	
	11-21	.8	1.7	.8	.4	2.1	3.1	3.3	.9	.0	.0	13.1	
	22+	.3	.4	.2	.4	1.0	3.6	4.0	.5	.0	.0	10.4	
	TOT %	2.1	3.5	2.3	1.5	5.0	8.4	9.9	2.6	.0	.1	35.4	
10+	0-3	.3	.2	.1	.3	.4	.4	.5	.2	.0	1.0	3.5	
	4-10	2.0	2.3	2.2	1.9	3.7	4.2	4.8	2.2	.0	.0	23.2	
	11-21	1.7	5.2	3.7	1.0	3.3	4.7	4.5	2.3	.0	.0	26.4	
	22+	.5	1.2	.3	.1	1.1	2.9	2.5	.7	.0	.0	9.2	
	TOT %	4.5	8.9	6.3	3.4	8.6	12.1	12.3	5.3	.0	1.0	62.3	
TOT OBS													
TOT PCT													
		6.7	12.4	8.8	5.1	13.9	21.2	22.6	8.2	.0	1.2	100.0	2288

OCTOBER

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1854-1971AREA 0016 ESPERANCE BAY S  
35.35 120.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.0	1.6	8.7	18.6	10.3	5.1	2.9	.6	1.3	49.2	50.8	311
06009	.0	.0	.6	6.7	14.6	6.1	4.9	2.7	.3	.9	36.8	63.2	329
12015	.0	.0	.6	6.6	14.9	8.4	3.0	4.2	.3	1.5	39.4	60.6	335
18021	.6	.0	.9	7.9	16.5	9.5	7.0	1.9	.3	.3	44.9	55.1	316
TOT	2	0	12	96	208	110	64	38	5	13	548	743	1291
PCT	.2	.0	.9	7.4	16.1	8.5	5.0	2.9	.4	1.0	42.4	57.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
(GMT)							
00003	.3	.7	.3	1.3	36.5	60.8	669
06009	.4	.6	.4	2.1	27.8	68.7	486
12015	.0	.6	.1	.9	40.6	57.8	687
18021	.0	.0	.2	1.0	34.8	64.0	503
TOT	4	12	6	30	833	1460	2345
PCT	.2	.5	.3	1.3	35.5	62.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HR	<150	<600	<1000	1000+	NH <5/8 AND 5+	TOTAL OBS
(GMT)	<500	<1	<5	AND 5+		
00003	.0	1.7	13.0	37.9	49.2	301
06009	.3	1.0	10.0	28.9	61.1	311
12015	.0	.6	8.2	33.3	58.5	318
18021	.7	1.7	11.0	36.3	52.7	300
TOT	3	15	129	419	682	1230
PCT	.2	1.2	10.5	34.1	55.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.1	.0	.1	.1	.0	3	.2
64/69	.0	.0	.0	.3	.5	1.2	.3	.2	41	2.5
60/64	.0	.1	.1	.4	3.3	6.6	9.9	3.2	389	23.8
55/59	.0	.0	.2	1.9	9.2	18.0	18.4	8.5	917	56.2
50/54	.0	.0	.0	1.2	4.4	3.7	5.5	2.1	276	16.9
45/49	.0	.0	.0	.0	.1	.0	.2	.2	7	.4
TOTAL	0	1	4	69	285	482	560	232	1633	100.0
PCT	.0	.1	.2	4.2	17.5	29.5	34.3	14.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.1	.0	.0	.0	.1	.0	.1
.1	.4	.5	.2	.*	.2	.7	.2	.0	.2
3.0	5.1	2.7	.8	1.3	3.0	5.3	2.3	.0	.2
3.3	6.2	5.1	3.0	7.6	13.3	12.5	4.6	.0	.6
.3	.5	.4	1.2	4.9	6.1	2.8	.5	.0	.2
.0	.0	.0	.0	.0	.2	.2	.0	.0	.0
6.8	12.2	8.7	5.3	13.9	22.8	21.5	7.7	.0	1.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
(GMT)									
00003	74	67	64	58	52	50	47	58.0	910
06009	70	67	65	59	53	51	49	59.1	562
12015	73	65	63	59	52	50	48	57.0	860
18021	66	63	61	56	51	49	47	56.3	604
TOT	74	66	63	58	52	50	47	57.6	2936

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
(GMT)										
00003	.0	5.3	20.9	30.6	30.6	12.6	77	454		
06009	.0	6.5	20.5	34.1	30.8	8.1	76	370		
12015	.0	1.3	14.6	29.3	40.5	14.3	80	467		
18021	.0	5.7	14.1	23.2	35.5	21.4	80	383		
TOT	0	76	293	491	578	236	78	1674		

## OCTOBER

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1854-1971

AREA 0016 ESPERANCE BAY S  
35.35 120.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.1	.0	.0	2	.0	.1
9/10	.0	.0	.0	.0	.1	.1	.0	4	.0	.2
7/8	.0	.0	.0	.1	.2	.2	.0	9	.0	.5
6	.0	.0	.0	.2	.1	.4	.0	12	.0	.6
5	.0	.0	.0	.2	.6	.4	.0	23	.0	1.2
4	.0	.0	.1	.5	1.5	.2	.0	41	.0	2.2
3	.0	.0	.3	1.7	2.3	.3	.0	85	.0	4.6
2	.0	.0	.4	3.3	2.7	.4	.0	126	.1	6.8
1	.0	.0	.5	6.1	2.1	.2	.0	164	.1	8.8
0	.0	.0	1.7	9.7	2.3	.1	.0	255	.4	13.4
-1	.0	.1	4.1	9.2	1.6	.0	.0	276	.1	14.8
-2	.0	.2	6.2	5.8	.3	.0	.0	232	.1	12.4
-3	.0	.3	6.5	3.8	.3	.0	.0	201	.1	10.8
-4	.0	.5	4.2	2.4	.4	.0	.0	139	.2	7.3
-5	.0	1.0	3.0	.8	.1	.0	.0	91	.0	4.9
-6	.1	1.4	2.2	.5	.0	.0	.0	76	.0	4.1
-7/-8	.0	1.5	2.2	.6	.1	.0	.0	80	.0	4.3
-9/-10	.0	.4	.7	.0	.0	.0	.0	20	.0	1.1
-11/-13	.0	.5	.2	.0	.0	.0	.0	13	.0	.7
-14/-16	.0	.1	.0	.0	.0	.0	.0	2	.0	.1
TOTAL	1	111	593	832	271	41	2	1851	17	1834
PCT	.1	6.0	32.0	44.9	14.6	2.2	.1	100.0	.9	99.1

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.3	.2	.0	.0	.0	.6	.2	.5	.0	.0	.0	.0	.6
1-2	.2	2.0	.2	.0	.0	.0	2.3	.2	1.7	.9	.0	.0	.0	2.8
3-4	.0	.4	1.9	.5	.0	.0	2.8	.2	.9	4.2	.0	.0	.0	5.3
5-6	.0	.3	.8	.1	.0	.0	1.1	.0	.2	4.4	.4	.0	.0	5.0
7	.0	.0	.3	.4	.0	.0	.8	.0	.0	1.4	.8	.0	.0	2.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.0	3.3	1.0	.0	.0	7.7	.5	3.2	11.2	2.0	.4	.0	17.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.5	.5	.0	.0	.0	.0	.9
1-2	.1	1.3	.6	.0	.0	.0	2.1	.2	1.3	.0	.0	.0	.0	1.8
3-4	.0	.7	2.1	.0	.0	.0	2.8	.2	1.1	.9	.0	.0	.0	2.1
5-6	.0	.0	1.7	.1	.0	.0	1.8	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	1.2	.0	.1	.0	1.3	.0	.0	.3	.3	.0	.0	.6
8-9	.0	.0	.6	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.2	6.3	.1	.1	.0	8.8	.9	3.1	2.0	.8	.0	.0	6.8

PERIOD: (OVER-ALL) 1963-1971

OCTOBER

AREA 0016 ESPERANCE BAY S  
35.35 120.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.1	.2	.0	.0	.0	.0	.3	.2	.4	.0	.0	.0	.0	.6	
1-2	.3	3.0	.5	.0	.0	.0	3.8	.7	2.4	.2	.0	.0	.0	3.2	
3-4	.0	1.7	1.6	.1	.0	.0	3.4	.*	1.9	2.6	.8	.0	.0	5.4	
5-6	.0	.1	1.3	.7	.0	.0	2.2	.0	.7	1.5	.9	.0	.0	3.1	
7	.0	.1	1.5	1.1	.0	.0	2.8	.0	.*	2.2	.3	.0	.0	2.6	
8-9	.0	.0	.1	.4	.1	.0	.7	.0	.2	.4	.7	.2	.0	1.4	
10-11	.0	.0	.0	.5	.3	.0	.8	.0	.0	.5	.8	.0	.0	1.3	
12	.0	.0	.2	.0	.0	.0	.2	.0	.2	.0	.7	.0	.0	.8	
13-16	.0	.0	.0	.0	.2	.0	.2	.0	.0	.2	.2	.0	.0	.4	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.2	.0	.6	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2	
23-25	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.0	.2	.1	.3	.0	.0	.0	.0	.3	.7	1.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	5.1	5.2	2.9	.9	.1	14.6	.9	5.7	7.5	4.9	1.0	.7	20.7	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.5	.6	.0	.0	.0	.0	1.0	.0	.2	.0	.0	.0	.0	.2	
1-2	.4	3.3	.2	.0	.0	.0	3.8	.0	1.8	.2	.0	.0	.0	2.0	
3-4	.3	2.3	2.5	.0	.0	.0	5.0	.0	.3	1.7	.0	.0	.0	2.0	
5-6	.0	.5	1.3	.3	.0	.0	2.1	.0	.0	1.6	.0	.0	.0	1.6	
7	.0	.2	1.4	.3	.0	.0	1.8	.0	.2	.4	.6	.0	.0	1.1	
8-9	.0	.0	.3	.5	.0	.0	.8	.0	.0	.2	.0	.0	.0	.2	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
12	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.1	.2	.0	.3	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.1	6.7	5.7	1.4	.2	.0	15.1	.0	2.4	4.2	.6	.0	.0	7.2	98.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	4.0	2.6	.2	.0	.0	.0	6.8	
1-2	2.3	17.5	2.6	.0	.0	.0	22.5	
3-4	.6	9.0	17.2	1.4	.0	.0	28.3	
5-6	.0	1.7	13.0	2.5	.0	.0	17.2	
7	.0	.5	8.5	3.9	.2	.0	13.0	
8-9	.0	.2	1.7	2.0	.3	.0	4.2	
10-11	.2	.0	.6	1.2	.5	.0	2.5	
12	.0	.2	.2	1.1	.0	.0	1.4	
13-16	.0	.0	.3	.6	.5	.0	1.4	
17-19	.0	.0	.0	.6	.2	.0	.8	
20-22	.0	.0	.0	.0	.2	.0	.2	
23-25	.0	.0	.0	.0	.3	.0	.3	
26-32	.0	.0	.0	.2	.5	.8	1.4	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.1	31.7	44.4	13.5	2.5	.8	100.0	644

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.6	4.3	6.5	3.8	2.3	1.5	1.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	202	4
6-7	.0	.1	2.9	7.0	5.1	3.6	2.2	1.2	1.3	.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	235	7
8-9	.0	.2	.8	3.0	6.4	3.9	3.7	1.2	1.8	.8	.0	.2	.2	.0	.0	.0	.0	.0	.0	221	9
10-11	.0	.0	.4	1.1	1.0	2.3	2.3	2.0	2.7	.2	.0	.1	.4	.0	.0	.0	.0	.0	.0	125	11
12-13	.0	.0	.1	.3	.6	1.4	1.5	1.0	2.1	.1	.2	.1	.1	.0	.0	.0	.0	.0	.0	75	11
>13	.0	.0	.0	.1	.1	.1	.4	.8	.3	.3	.0	.5	.1	.7	.0	.0	.0	.0	.0	33	16
INDET	.8	.8	1.3	1.2	1.4	1.2	.8	.9	.7	.5	.1	.2	.0	.0	.0	.0	.0	.0	.0	99	7
TOTAL	14	54	119	164	168	143	124	67	90	17	9	7	15	0	0	0	0	0	0	991	8
PCT	1.4	5.4	12.0	16.5	17.0	14.4	12.5	6.8	9.1	1.7	.9	.7	1.5	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1857-1969

NOVEMBER

AREA 0016 ESPERANCE BAY S  
35.45 120.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
N	2.4	.5	.0	.0	.0	.0	.0	2.8	.7	3.8	2.8	.0	.0	.0
NE	.3	1.1	.4	.0	.0	.0	.4	2.3	2.0	1.5	.4	.0	1.9	.0
E	1.6	1.3	1.1	.0	.0	.0	.0	4.0	.3	.9	.0	.0	1.0	.0
SE	.2	1.9	1.1	.0	.0	.0	.0	3.2	1.7	1.1	1.5	.0	.4	.0
S	2.0	2.9	.7	.0	.0	.0	.0	5.5	1.5	.3	1.5	.0	.3	.0
SW	1.0	5.6	.5	.0	.0	.0	.0	7.1	2.3	1.4	.4	.0	.3	.0
W	1.3	3.2	1.2	.0	.0	.0	.3	5.9	2.6	1.6	.7	.0	1.1	.0
NW	1.1	7.0	2.2	.0	.0	.0	.0	10.3	.0	4.5	.6	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	.0	.0	.0	.0
TOT PCT	1.2	3.0	.8	.0	.0	.0	.1	5.2	1.7	1.6	.8	.0	.7	.0
TOT OBS:	1774													90.1

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
00003	1.4	4.3	1.2	.0	.0	.0	.2	7.2	1.7	.6	.8	.0	1.0	.0
06009	.5	1.5	.5	.0	.0	.0	.0	2.4	1.9	.0	1.0	.0	1.0	.0
12015	1.4	3.4	.6	.0	.0	.0	.2	5.5	1.2	3.0	.6	.0	.6	.0
18021	1.4	2.3	1.2	.0	.0	.0	.0	4.9	2.1	2.8	.7	.0	.2	.0
TOT PCT	1.2	2.9	.9	.0	.0	.0	.1	5.1	1.7	1.6	.8	.0	.7	.0
TOT OBS:	1831													90.1

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	2.5	2.3	.4	.1	.0		5.8	12.4		7.5	8.4	5.1	4.9	2.9	5.2	6.5	6.5
NE	.4	3.7	7.3	2.0	.1	.0		13.5	14.8		14.2	13.4	13.7	15.4	11.8	15.1	14.4	11.4
E	.6	5.2	6.0	1.2	.1	.0		13.2	12.7		9.8	10.3	12.6	13.9	17.0	15.1	13.3	13.4
SE	.5	3.8	2.3	.4	.1	.0		7.0	10.9		7.0	5.5	6.9	6.3	8.7	6.2	8.5	4.8
S	.8	6.0	4.2	1.1	.2	.0		12.3	11.6		13.2	12.2	12.2	11.6	11.5	12.6	13.6	10.5
SW	.8	6.8	8.6	4.2	.8	.1		21.5	15.5		18.7	20.9	21.2	23.2	25.0	21.2	20.3	20.9
W	.7	5.6	8.7	4.7	.6	.1		20.4	16.4		20.5	20.4	23.6	19.9	19.1	20.1	16.9	24.1
NW	.3	2.2	1.4	.7	.1	.0		4.7	13.2		8.0	6.3	4.0	3.4	2.4	1.2	4.7	6.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.7							1.7	.0		1.2	2.6	.6	1.5	1.6	3.3	1.6	1.6
TOT OBS	157	907	1045	377	54	5	2545		13.9		503	271	309	205	514	213	310	220
TOT PCT	6.2	35.6	41.1	14.8	2.1	.2		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	03	09	15	21
N	1.4	2.7	1.4	.2	*			5.8	12.4		7.8	5.0	3.6	6.6	
NE	1.5	6.3	5.0	.6	*			13.5	14.8		13.9	14.3	12.8	13.2	
E	2.0	8.0	7.8	.3	.1			13.2	12.7		10.0	13.1	16.4	13.3	
SE	2.2	3.5	1.0	.3	*			7.0	10.9		6.5	6.7	7.9	7.0	
S	3.1	6.4	2.1	.7	.0			12.3	11.6		12.9	12.0	11.8	12.3	
SW	3.2	9.7	6.1	2.4	.2			21.5	15.5		19.5	22.0	23.9	20.6	
W	2.4	8.2	7.2	2.3	.2			20.4	16.4		20.5	22.1	19.4	19.9	
NW	1.2	2.0	1.1	.4	*			4.7	13.2		7.4	3.8	2.1	5.5	
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0	
CALM	1.7							1.7	.0		1.7	1.0	2.1	1.7	
TOT OBS	470	1192	685	181	17	2545			13.9		774	514	727	530	
TOT PCT	18.5	46.8	26.9	7.1	.7			100.0			100.0	100.0	100.0	100.0	



PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1857-1969

# NOVEMBER

AREA 0016 ESPERANCE BAY S  
35.4S 120.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL DBS
				11-21	22-33	34-47				
00003	1.7	3.5	34.5	43.2	14.9	1.9	.4	14.1	100.0	774
06009	1.0	3.9	30.7	44.0	18.1	2.1	.2	14.8	100.0	514
12015	2.1	4.8	36.7	40.3	13.6	2.3	.1	13.5	100.0	727
18021	1.7	6.2	40.6	36.2	13.2	2.1	.0	13.1	100.0	530
TOT	42	115	907	1045	377	54	5	13.9		2545
PCT	1.7	4.5	35.6	41.1	14.8	2.1	.2	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.2	.7	1.8	1.8	4.4	4.4
NE	4.6	2.6	3.1	2.2	4.0	4.0
E	4.4	1.2	4.2	3.3	4.7	4.7
SE	1.1	1.2	3.0	2.5	5.6	5.6
S	2.0	1.9	4.0	2.5	5.4	5.4
SW	5.0	3.8	8.7	3.5	4.7	4.7
W	4.7	3.8	7.7	4.7	4.9	4.9
NW	1.5	.6	2.0	1.0	4.7	4.7
VAR	.0	.0	.0	.0	.0	.0
CALM	.5	.2	.4	.3	4.1	4.1
TOT OBS	291	179	411	241	1122	4.8
TOT PCT	25.9	16.0	36.6	21.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

INCIDENCE OF NH <5/8 OF WIND DIRECTION											
000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL DBS
.0	.1	.1	.3	.5	.3	.4	.3	.1	.0	4.1	
.0	*	.1	1.2	1.5	.5	.5	.2	.0	.1	8.5	
.0	.0	.1	1.3	1.6	1.6	.9	.4	.0	.1	7.1	
.0	.0	.0	.8	1.3	1.6	.3	.1	.1	.3	3.5	
.0	.0	.2	.5	2.4	2.3	1.3	.5	.2	.0	5.0	
.0	.0	.1	1.1	2.9	2.4	1.7	1.0	.0	.2	11.5	
.0	.0	.1	.8	3.7	2.7	1.1	.3	.0	.2	11.9	
.0	.0	.2	.6	.5	.5	.3	.2	.0	.1	2.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.2	.2	.1	.0	.1	.0	.0	.8	
.0	1	9	77	162	134	73	34	4	11	617	
.0	.1	.8	6.9	14.4	11.9	6.5	3.0	.4	1.0	55.0	

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.3	1.4	1.4	1.4	1.4	1.4	1.4	1.4
>5000	3.7	4.3	4.4	4.4	4.4	4.4	4.4	4.4
>3500	9.4	10.9	10.9	10.9	10.9	10.9	10.9	10.9
>2000	19.6	22.5	22.7	22.9	22.9	22.9	22.9	22.9
>1000	31.0	36.5	37.2	37.4	37.4	37.4	37.4	37.4
>600	36.0	43.1	43.8	44.1	44.1	44.1	44.1	44.1
>300	36.4	43.9	44.6	44.9	44.9	44.9	44.9	44.9
>150	36.4	44.0	44.7	45.0	45.0	45.0	45.0	45.0
>0	36.4	44.0	44.7	45.0	45.0	45.0	45.0	45.0
TOTAL	419	507	515	518	518	518	518	518

TOTAL NUMBER OF DBS: 1152

PCT FREQ NH <5/8: 55.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL DBS
12.7	12.6	12.9	9.4	7.5	6.7	9.3	11.8	17.0	.0	1261

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1857-1969

# NOVEMBER

AREA 0016 ESPERANCE BAY S  
35.45 120.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	*	*	.0	.0	.1	*	.0	.0	.0	.0	.2	.2
	NO PCP	.2	.1	.0	.1	.1	.1	.1	*	.0	.0	.6	.6
	TOT %	.2	.1	.0	.1	.1	.1	.1	*	.0	.0	.7	.7
1<2	PCP	.0	.0	.0	.0	.1	*	*	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.1	*	.1	.0	.1	.0	.0	.0	.3	.3
	TOT %	.0	.0	.1	*	.2	*	.2	.0	.0	.0	.5	.5
2<5	PCP	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.2	.2
	NO PCP	.0	.1	.0	.0	.1	.0	.1	.0	.0	.0	.3	.3
	TOT %	.0	.1	.0	.0	.2	.0	.1	.1	.0	.0	.5	.5
5<10	PCP	.1	.2	.4	.2	.3	1.1	.8	.4	.0	.0	.3	.3
	NO PCP	1.7	3.7	4.0	1.8	4.2	6.1	5.8	1.1	.0	.3	28.7	28.7
	TOT %	1.9	3.9	4.4	2.0	4.6	7.2	6.6	1.5	.0	.3	32.2	32.2
10+	PCP	.0	.1	.1	*	.1	.3	.4	.1	.0	.0	1.1	1.1
	NO PCP	3.9	8.7	8.1	5.4	7.6	13.6	13.5	3.4	.0	.8	64.9	64.9
	TOT %	3.9	8.7	8.2	5.4	7.7	13.9	13.9	3.4	.0	.8	66.0	66.0
TOT OBS													
TOT PCT													
													1774
		6.0	12.8	12.7	7.5	12.8	21.3	20.9	5.0	.0	1.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	*	.0	.1	.1	.0	*	*	.0	.0	.3	.3
	11-21	.1	.1	.0	.0	.1	*	.1	.0	.0	.0	.3	.3
	22+	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	.1
	TOT %	.2	.1	.0	.1	.1	.1	.1	*	.0	.0	.7	.7
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.1	*	.1	*	.1	.0	.0	.0	.3	.3
	22+	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.1	.1
	TOT %	.0	.0	.1	*	.2	*	.1	.0	.0	.0	.5	.5
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.1	.0	.2	.0	.0	.0	.0	.0	.2	.2
	11-21	.0	.1	.0	.0	.1	.0	.1	.1	.0	.0	.3	.3
	22+	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.1	.1
	TOT %	.0	.1	.1	.0	.2	.0	.1	.1	.0	.0	.6	.6
5<10	0-3	.1	.1	.1	.2	.4	.2	.3	.1	.0	.3	1.7	1.7
	4-10	.5	1.0	1.2	.9	1.5	1.7	1.7	.6	.0	.3	9.1	9.1
	11-21	1.0	1.8	2.5	.7	2.1	3.0	2.3	.5	.0	.3	13.9	13.9
	22+	.1	.7	.5	.2	.4	1.7	1.6	.2	.0	.0	5.5	5.5
	TOT %	1.7	3.6	4.4	2.0	4.4	6.6	6.0	1.3	.0	.3	30.2	30.2
10+	0-3	.4	.3	.6	.4	.4	.7	.4	.2	.0	.8	4.1	4.1
	4-10	1.7	2.6	4.0	3.2	4.3	5.0	3.6	1.6	.0	.3	26.1	26.1
	11-21	1.4	4.9	3.7	1.6	2.4	6.3	6.2	.9	.0	.3	27.2	27.2
	22+	.3	1.0	.8	.3	.8	3.1	3.8	.6	.0	.3	10.7	10.7
	TOT %	3.7	8.7	9.0	5.5	7.9	15.1	14.0	3.3	.0	.8	68.1	68.1
TOT OBS													
TOT PCT													
													1961
		5.7	12.5	13.5	7.5	12.8	21.9	20.4	4.7	.0	1.0	100.0	

## NOVEMBER

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1857-1969

AREA 0016 ESPERANCE BAY S  
35.45 120.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.7	9.0	14.3	13.6	8.6	5.0	.3	2.0	53.5	46.5	301
06009	.0	.3	.0	5.5	12.2	11.3	5.8	2.3	.6	.0	37.9	62.1	311
12015	.0	.0	1.0	4.6	14.8	8.9	3.6	2.0	.7	1.3	36.7	63.3	305
18021	.0	.0	1.3	6.4	14.1	11.8	6.7	2.4	.0	.3	43.1	56.9	297
TOT	0	1	9	77	168	138	75	35	5	11	519	695	1214
PCT	.0	.1	.7	6.3	13.8	11.4	6.2	2.9	.4	.9	42.8	57.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.9	1.1	.4	33.6	64.0	544
06009	.0	.7	.2	.5	25.5	73.2	444
12015	.0	.5	.2	.5	35.8	62.9	572
18021	.0	.7	.2	.9	24.7	73.6	458
TOT	0	14	9	11	614	1370	2018
PCT	.0	.7	.4	.5	30.4	67.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.7	11.4	44.3	44.3	289
06009	.0	.3	6.8	33.1	60.1	296
12015	.0	1.0	6.6	32.9	60.5	286
18021	.0	1.4	9.6	35.9	54.4	281
TOT	0	10	99	421	632	1152
PCT	.0	.9	8.6	36.5	54.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.1	.0	.0	.0	.0	.0	1	.1
70/74	.0	.0	.1	.1	.2	.1	.1	.0	7	.5
65/69	.0	.0	.1	.3	1.9	1.9	2.5	.3	96	6.9
60/64	.0	.0	.1	1.9	5.9	13.8	15.7	5.0	585	41.9
55/59	.0	.0	.1	2.5	12.0	16.0	12.4	3.6	651	46.6
50/54	.0	.0	.0	.4	1.6	1.0	.7	.4	57	4.1
TOTAL	0	0	7	63	302	457	439	129	1397	100.0
PCT	.0	.0	.5	4.5	21.6	32.7	31.4	9.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
.0	.1	.2	.0	.0	.1	.0	.0	.0	.1
.4	1.2	.7	.2	.3	1.1	2.5	.4	.0	.1
3.5	7.5	6.0	2.7	3.2	6.5	9.1	2.8	.0	.6
1.3	4.2	5.4	4.2	7.4	13.2	8.6	1.7	.0	.5
.0	.0	.1	.6	1.1	1.5	.7	.0	.0	.0
5.2	12.9	12.5	7.7	12.1	22.5	20.8	4.9	.0	1.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	72	68	66	60	55	53	49	60.1	758
06009	75	72	67	61	56	55	52	61.4	505
12015	70	65	63	59	55	53	51	59.1	723
18021	69	65	63	58	54	52	49	58.3	543
TOT	75	68	65	60	55	53	49	59.7	2529

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	5.7	21.4	28.1	34.3	10.5	77	370
06009	.0	8.2	28.2	33.3	23.9	6.4	74	330
12015	.0	3.4	17.4	37.0	33.2	9.1	78	386
18021	.0	3.4	19.5	31.3	32.8	12.9	78	348
TOT	0	73	307	446	448	140	77	1434

NOVEMBER

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1857-1969

AREA 0016 ESPERANCE BAY S  
35.45 120.7E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	N FOG	NO FOG
14/16	.0	.0	.0	.0	.0	.0	.1	2	.0	.1
11/13	.0	.0	.0	.0	.0	.2	.0	3	.0	.2
9/10	.0	.0	.0	.0	.1	.0	.1	3	.0	.2
7/8	.0	.0	.1	.1	.3	.1	.0	9	.0	.6
6	.0	.0	.0	.3	.5	.1	.0	13	.0	.8
5	.0	.0	.0	.6	1.0	.2	.0	27	.0	1.8
4	.0	.0	.2	.9	1.2	.2	.0	38	.0	2.5
3	.0	.1	.3	2.9	1.6	.0	.0	75	.0	4.9
2	.0	.1	2.0	4.6	.7	.0	.0	112	.1	7.2
1	.0	.3	3.8	5.2	.4	.1	.0	149	.1	9.7
0	.0	.5	7.3	6.3	.6	.0	.0	225	.1	14.6
-1	.1	1.2	8.8	4.4	.1	.0	.0	224	.1	14.6
-2	.0	2.5	8.3	2.3	.1	.0	.0	203	.1	13.1
-3	.1	2.8	5.9	.8	.0	.0	.0	147	.2	9.4
-4	.1	3.7	3.6	1.0	.0	.0	.0	129	.1	8.4
-5	.1	2.5	2.4	.5	.0	.0	.0	85	.1	5.4
-6	.0	1.0	1.0	.1	.0	.0	.0	33	.0	2.2
-7/-8	.4	1.8	.7	.0	.0	.0	.0	43	.1	2.7
-9/-10	.0	.6	.1	.0	.0	.0	.0	2	.0	.7
-11/-13	.1	.1	.0	.0	.0	.0	.0	10	.0	.1
TOTAL	12		681	460	99	3		1532	14	1518
PCT	.8	17.2	44.5	30.0	6.5	.8	.2	100.0	.9	99.1

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6	.2	.2	.0	.0	.0	.0	.4
1-2	.5	1.0	.0	.0	.0	.0	1.6	.5	1.4	.4	.0	.0	.0	2.3
3-4	.0	.6	.7	.0	.0	.0	1.3	.0	1.8	2.7	.2	.0	.0	4.7
5-6	.0	.0	.5	.0	.0	.0	.5	.0	.4	3.2	.1	.0	.0	3.6
7	.0	.0	.4	.2	.0	.0	.5	.0	.0	1.8	.4	.0	.0	2.2
8-9	.0	.0	.3	.0	.0	.0	.3	.0	.0	.2	.2	.0	.0	.4
10-11	.0	.0	.1	.0	.0	.0	.1	.0	.0	.2	.5	.0	.0	.5
12	.0	.0	.1	.0	.0	.0	.1	.0	.0	.2	.2	.0	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	2.2	2.1	.2	.0	.0	5.0	.7	3.8	8.5	1.5	.0	.0	14.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4	.4	.2	.0	.0	.0	.0	.5
1-2	.3	2.6	.5	.0	.0	.0	3.5	.5	2.7	.2	.0	.0	.0	2.9
3-4	.2	2.0	2.7	.4	.0	.0	5.0	.0	1.6	1.2	.0	.0	.0	2.8
5-6	.0	.4	2.9	.4	.0	.0	3.7	.0	.5	1.0	.0	.0	.0	1.0
7	.0	.2	.6	.3	.0	.0	1.0	.0	.0	.4	.2	.0	.0	.6
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	5.6	6.8	.9	.5	.0	14.2	.4	4.5	7.8	.2	.0	.0	7.8

PERIOD: (OVER-ALL) 1963-1969

NOVEMBER

AREA 0016 ESPERANCE BAY S  
35.45 120.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.6	1.0	.0	.0	.0	.0		1.6	.2	.8	.0	.0	.0	.0		.9
1-2	.3	1.6	.2	.0	.0	.0		2.0	.6	3.1	.4	.0	.0	.0		4.1
3-4	.0	1.3	2.0	.0	.0	.0		3.3	.0	2.0	1.5	.3	.0	.0		3.9
5-6	.0	.4	.9	.1	.0	.0		1.4	.0	.3	3.4	1.1	.3	.0		5.2
7	.0	.0	.4	.6	.0	.0		1.0	.0	.0	1.1	1.4	.0	.0		2.5
8-9	.0	.0	.1	.2	.0	.0		.3	.0	.0	.5	.8	.3	.0		1.7
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.3	.2	.0		.5
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.2	.0	.0		.2
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.3	.2		.5
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.5	.0	.1		.5
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.2
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.9	4.3	3.5	.9	.0	.0		9.6	.8	6.3	6.9	4.9	1.2	.2		20.3

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.2	.5	.0	.0	.0	.0		.7	.2	.0	.0	.0	.0	.0		.2	
1-2	.2	2.4	.4	.0	.0	.0		3.0	.0	1.6	.0	.0	.0	.0		1.7	
3-4	.0	1.2	3.2	.4	.0	.0		4.8	.2	.6	.6	.2	.0	.0		1.6	
5-6	.0	.3	3.1	1.1	.0	.0		4.5	.0	.5	.5	.4	.0	.0		1.3	
7	.0	.0	1.2	2.2	.2	.0		3.5	.0	.0	.3	.2	.0	.0		.5	
8-9	.0	.0	.6	.9	.2	.0		1.6	.0	.0	.0	.3	.0	.0		.3	
10-11	.0	.0	.0	.9	.1	.0		1.1	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.4	.0	.0		.4	.0	.0	.0	.2	.0	.0		.2	
13-16	.0	.0	.0	.3	.2	.0		.5	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.3	.0		.3	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.2	.0		.2	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.3	4.5	8.5	6.2	.9	.2		20.6	.4	2.7	1.4	1.2	.2	.0		5.8	97.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	5.2	3.9	.0	.0	.0	.0	9.1	
1-2	2.5	10.2	2.0	.0	.0	.0	20.6	
3-4	.3	11.1	14.3	1.2	.0	.0	27.0	
5-6	.0	2.3	15.3	3.1	.3	.0	21.0	
7	.0	.2	6.0	5.2	.2	.0	11.6	
8-9	.0	.0	1.7	2.5	.5	.0	4.6	
10-11	.0	.0	.2	1.7	.6	.0	2.5	
12	.0	.0	.3	.9	.2	.0	1.4	
13-16	.0	.0	.0	.3	.5	.2	.9	
17-19	.0	.0	.0	.0	.5	.0	.8	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.3	.0	.3	
26-32	.0	.0	.0	.2	.2	.0	.3	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	8.0	33.6	39.8	15.6	2.6	.5	100.0	649

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	2.5	5.2	4.2	2.0	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	141
6-7	.0	.3	4.0	5.4	5.7	2.8	2.7	.5	.9	.0	.1	.1	.2	.0	.0	.0	.0	.0	.0	.0	211
8-9	.0	.1	1.6	3.9	4.9	5.0	3.0	2.0	.9	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	208
10-11	.0	.0	.1	1.3	4.0	3.3	3.2	1.8	1.3	.8	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	155
12-13	.0	.0	.1	.6	.9	1.0	2.0	1.3	3.1	.2	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	91
>13	.0	.0	.0	.0	.1	.2	.2	1.0	1.1	.0	.5	.1	.2	.0	.0	.0	.0	.0	.0	.0	32
INDET	1.2	.5	1.2	1.8	2.0	1.1	.8	.1	1.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	94
TOTAL	14	32	113	160	183	130	115	63	77	16	17	5	6	1	0	0	0	0	0	0	932
PCT	1.5	3.4	12.1	17.2	19.6	13.9	12.3	6.8	8.3	1.7	1.8	.5	.6	.1	.0	.0	.0	.0	.0	.0	100.0



PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1854-1971

# DECEMBER

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENON							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.8	.8	1.2	.0	.0	.0	.0	2.8	1.2	5.6	.0	.0	2.4	.0	88.0
NE	1.9	1.2	.4	.0	.0	.0	.0	3.5	1.3	2.1	1.9	.0	3.5	.0	88.1
E	2.0	2.1	.7	.0	.0	.0	.0	4.8	1.2	3.3	.9	.0	3.2	.0	87.8
SE	2.3	2.6	.8	.0	.0	.0	.0	5.6	2.1	1.3	.2	.0	.2	.0	91.0
S	.4	.6	.8	.0	.0	.0	.0	1.9	.3	.4	.6	.0	1.3	.0	95.4
SW	1.5	1.8	.8	.0	.0	.0	.3	4.4	1.5	.4	1.6	.0	.4	.1	91.9
W	1.4	3.9	1.6	.0	.0	.0	.0	6.9	2.8	.2	1.2	.0	.2	.2	88.4
NW	2.0	3.2	5.1	.0	.0	.0	.0	10.3	1.6	.0	1.6	.0	.0	.0	86.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.7	.0	83.3
TOT PCT	1.5	2.1	1.0	.0	.0	.0	.1	4.7	1.5	1.4	1.1	.0	1.5	.1	90.0
TOT OBS:	1793														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	1.6	3.0	1.0	.0	.0	.0	.0	5.6	1.8	.4	2.2	.0	1.6	.0	88.6
06009	.8	.8	.5	.0	.0	.0	.0	2.0	2.0	.0	1.0	.0	2.3	.0	92.7
12015	1.4	1.2	.4	.0	.0	.0	.2	3.2	1.6	2.8	.4	.0	2.0	.0	91.0
18021	2.2	3.0	2.2	.0	.0	.0	.0	7.4	.7	2.0	.7	.0	.0	.2	88.9
TOT PCT	1.5	2.0	1.0	.0	.0	.0	.1	4.5	1.6	1.3	1.1	.0	1.5	.1	90.3
TOT OBS:	1806														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	2.3	1.4	.4	.0	.0		4.5	11.1		6.3	4.9	2.0	6.0	3.2	4.1	4.1	5.3
NE	.5	4.3	7.5	2.7	.3	.0		15.3	14.9		16.1	16.1	13.5	14.8	13.1	18.4	14.9	17.9
E	.8	5.0	7.7	1.8	.1	.0		15.3	13.4		14.6	12.3	14.5	16.0	17.5	15.8	16.8	14.2
SE	.5	4.4	3.4	.4	.0	.0		8.7	10.9		6.3	4.9	9.8	9.8	11.1	7.8	11.9	7.0
S	.9	6.9	4.6	.6	.2	.0		13.3	11.0		11.4	12.4	12.5	12.9	15.7	15.0	15.1	10.5
SW	.8	8.0	6.8	2.6	.6	.1		18.9	13.5		17.9	19.7	19.6	17.6	21.2	18.7	16.0	19.4
W	.5	5.8	8.0	3.0	.7	.2		18.3	15.5		19.3	19.8	24.0	16.9	15.7	13.4	18.4	18.0
NW	.2	2.2	2.1	.3	.1	*		5.0	12.3		7.1	8.1	4.0	5.3	2.3	5.5	2.8	5.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.8							.8	.0		.8	1.8	.0	.5	.2	1.4	.3	1.9
TOT OBS	135	971	1032	294	49	7	2488		13.2		499	273	288	209	499	209	296	215
TOT PCT	5.4	39.0	41.5	11.8	2.0	.3		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40						00	06	12	18
N	1.2	2.3	.7	.3	.0		4.5	11.1		5.9	3.7	3.4	4.6
NE	1.6	7.6	5.2	.9	.0		15.3	14.9		16.1	14.1	14.7	16.1
E	2.3	8.3	4.3	.4	.0		15.3	13.4		13.8	15.1	17.0	15.5
SE	2.1	4.8	1.7	*	.0		8.7	10.9		5.8	9.8	10.1	9.8
S	3.4	7.4	2.0	.4	.0		13.3	11.0		11.8	12.7	15.5	13.2
SW	4.1	9.2	3.9	1.6	.1		18.9	13.5		18.6	18.8	20.4	17.4
W	2.7	8.1	5.6	1.4	.4		18.3	15.5		19.5	21.0	15.0	18.2
NW	1.2	2.6	.9	.1	.1		5.0	12.3		7.4	4.6	3.2	4.1
VAR	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0
CALM	.8						.8	.0		1.2	.2	.6	1.0
TOT OBS	485	1253	609	126	15	2488		13.2		772	497	708	511
TOT PCT	19.5	50.4	24.5	5.1	.6		100.0			100.0	100.0	100.0	100.0

DECEMBER

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1854-1971

AREA 0016 ESPERANCA Bay S  
35.45 120.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	1.2	5.2	37.4	42.9	10.9	2.1	.3	13.2	100.0	772
0600	.2	3.8	36.4	42.9	13.5	2.6	.6	14.0	100.0	497
1200	.6	4.2	42.8	37.0	13.4	1.8	.1	13.2	100.0	708
1800	1.0	5.3	38.6	44.2	9.4	1.4	.2	12.6	100.0	511
TOT	19	116	971	1032	294	49	7	13.2		2488
PCT	.8	4.7	39.0	41.5	11.8	2.0	.3	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.0	.5	1.2	.7		4.6
NE	5.5	1.6	4.9	2.1		4.1
E	2.8	1.8	6.5	5.0		5.6
SE	1.0	1.2	3.8	3.8		5.9
S	3.1	2.3	5.4	3.6		5.1
SW	3.8	4.0	7.1	4.3		5.1
W	5.2	3.3	7.4	3.2		4.6
NW	1.2	.6	1.0	.7		4.4
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.1	.2		7.6
TOT OBS	255	166	403	256	1080	5.0
TOT PCT	23.6	15.4	37.3	23.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH	<5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY	HGT	OBS
.0	.0	.0	.2	.6	.1	.4	.0	*	.0	2.2		
.0	.0	.0	.8	1.6	.9	.9	.4	.2	.2	9.2		
.1	.1	.3	1.3	3.4	1.8	1.4	.6	.0	.3	6.8		
.0	*	.3	.9	1.9	1.9	.7	.2	.1	*	3.4		
.0	.1	.1	.9	2.5	2.3	.8	.3	.2	.2	7.2		
.0	.0	.3	1.1	3.6	2.0	1.2	.4	.2	.1	10.2		
.0	.0	.3	1.5	2.9	1.0	1.8	.6	.1	.0	11.0		
.0	.0	.0	.4	.3	.4	.1	.1	.0	.0	2.2		
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0		
1	2	14	77	184	113	80	28	9	8	564		1080
.1	.2	1.3	7.1	17.0	10.5	7.4	2.6	.8	.7	52.2		100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSEY (NM)

CEILING (FEET)	VSEY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	1.4	1.5	1.5	1.5	1.5	1.5	1.5	1.5
>4000	3.4	4.0	4.1	4.1	4.1	4.1	4.1	4.1
>3500	10.5	11.4	11.6	11.6	11.6	11.6	11.7	11.7
>3000	19.2	21.4	21.8	21.8	21.8	21.8	21.9	21.9
>2500	34.0	38.0	38.8	38.8	38.8	38.8	38.9	38.9
>2000	39.1	44.6	45.8	45.8	45.8	45.8	45.9	45.9
>1500	39.7	45.5	46.8	47.0	47.0	47.1	47.2	47.2
>1000	39.7	45.6	47.0	47.2	47.2	47.2	47.3	47.3
>500	39.7	45.7	47.1	47.2	47.2	47.3	47.4	47.4
TOTAL	440	506	521	523	523	524	525	525

TOTAL NUMBER OF OBS: 1107

PCT FREQ NH <5/8: 52.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
10.0	13.1	11.5	9.4	8.5	5.8	10.3	12.1	19.2	.0	1189

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1854-1971

DECEMBER

AREA 0016 ESPERANCE BAY S  
35.4S 120.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	NO PCP	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.1	.0	.1	.0	.1	.0	.0	.0	.2	
1/2<1	PCP	.0	.1	.1	.0	.0	.1	*	*	.0	.0	.3	
	NO PCP	.1	.2	.0	.0	.0	.1	*	.1	.0	.0	.5	
	TOT %	.1	.3	.1	.0	.0	.1	.1	.1	.0	.0	.7	
1<2	PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	*	.4	.4	*	.1	.1	.0	.0	.0	.1	1.1	
	TOT %	*	.4	.4	*	.1	.1	.0	.0	.0	.1	1.1	
2<5	PCP	.0	*	.1	.0	.1	.1	.1	.0	.0	.0	.3	
	NO PCP	.1	.2	.1	.1	.1	.0	.3	.0	.0	.0	.9	
	TOT %	.1	.2	.2	.1	.2	.1	.3	.0	.0	.0	1.2	
5<10	PCP	.1	.4	.5	.4	.1	.5	.9	.3	.0	.0	3.1	
	NO PCP	.9	6.1	5.5	2.7	4.1	6.6	5.3	1.0	.0	.2	32.4	
	TOT %	1.0	6.5	6.0	3.1	4.1	7.1	6.2	1.3	.0	.2	35.5	
10+	PCP	*	.1	.0	.1	.1	.2	.3	*	.0	.0	.9	
	NO PCP	2.3	8.6	9.6	5.5	8.9	11.7	11.4	2.2	.0	.1	60.4	
	TOT %	2.4	8.7	9.6	5.6	9.0	12.0	11.6	2.2	.0	.1	61.2	
TOT OBS													1753
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.0	.1	.0	.1	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.0	*	*	.1	.0	.0	.2	
	11-21	.1	.2	.1	.0	.0	.1	*	*	.0	.0	.4	
	22+	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.1	.3	.1	.0	.0	.1	.1	.1	.0	.0	.7	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.1	.1	*	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.2	.2	.0	.1	.1	.0	.0	.0	.0	.5	
	22+	*	.2	.1	.0	.1	.0	.0	.0	.0	.0	.4	
	TOT %	*	.4	.4	*	.1	.1	.0	.0	.0	.1	1.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	11-21	.1	.2	.1	.0	.1	.0	.2	.0	.0	.0	.6	
	22+	.1	*	.1	*	.1	.1	.2	.0	.0	.0	.5	
	TOT %	.1	.2	.2	.1	.2	.1	.3	.0	.0	.0	1.1	
5<10	0-3	.0	.1	.5	.2	.3	.4	.2	*	.0	.2	1.9	
	4-10	.4	1.0	1.6	1.0	1.9	2.5	1.5	.5	.0	.0	10.4	
	11-21	.5	3.6	2.9	1.5	1.0	2.1	2.5	.5	.0	.0	14.2	
	22+	.1	1.4	1.1	.1	.5	1.5	1.5	.1	.0	.0	6.4	
	TOT %	1.0	6.1	5.7	2.8	3.7	6.5	5.7	1.2	.0	.2	32.9	
10+	0-3	.4	.4	.3	.2	.7	.2	.3	.2	.0	.2	2.9	
	4-10	1.8	3.0	3.4	3.5	4.7	4.9	4.2	1.3	.0	.0	26.9	
	11-21	.7	4.2	5.8	1.7	3.6	5.3	5.7	1.5	.0	.0	28.5	
	22+	.1	1.5	.7	.3	.2	1.3	1.4	.2	.0	.0	5.7	
	TOT %	3.0	9.1	10.2	5.8	9.1	11.8	11.7	3.1	.0	.2	64.1	
TOT OBS													1957
TOT PCT													100.0

## DECEMBER

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1854-1971AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	1.7	9.3	20.4	8.7	11.4	2.8	.7	1.0	56.1	43.9	289
06009	.0	.3	.7	5.1	12.3	6.2	6.8	1.7	.3	.3	33.9	66.1	292
12015	.0	.3	1.4	5.2	16.0	11.1	5.9	2.1	.7	.7	43.4	56.6	288
18021	.4	.0	1.1	7.1	17.1	13.5	5.0	3.2	1.4	.7	49.5	50.5	281
TOT	1	2	14	77	189	113	84	28	9	8	525	625	1150
PCT	.1	.2	1.2	6.7	16.4	9.8	7.3	2.4	.8	.7	45.7	54.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.4	1.4	1.2	1.2	37.6	58.1	561
06009	.0	.5	1.2	1.6	25.0	71.8	432
12015	.0	.2	1.2	.9	37.9	59.8	575
18021	.2	.5	.5	.9	29.1	68.8	443
TOT	3	13	21	23	666	1285	2011
PCT	.1	.6	1.0	1.1	33.1	63.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	2.1	12.5	46.1	41.4	280
06009	.0	1.1	7.9	27.8	64.3	277
12015	.0	1.8	8.7	36.6	54.7	276
18021	.4	1.5	9.5	41.6	48.9	274
TOT	1	18	107	421	579	1107
PCT	.1	1.6	9.7	38.0	52.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.1	.1	.7	.8	.5	.1	33	2.4
65/69	.0	.0	.0	.7	1.9	5.6	8.7	3.3	271	20.1
60/64	.0	.0	.1	1.0	10.1	15.9	19.9	9.6	762	56.6
55/59	.0	.0	.0	.2	5.2	8.2	4.3	2.3	273	20.3
50/54	.0	.0	.0	.2	.0	.1	.1	.1	8	.6
TOTAL	0	0	2	31	241	413	451	209	1347	100.0
PCT	.0	.0	.1	2.3	17.9	30.7	33.5	15.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
70/74	.1	.4	.9	.3	.1	.4	.2	.1	.0	.0
65/69	.9	5.8	3.9	1.0	1.4	2.5	3.7	.8	.0	.1
60/64	2.4	8.5	9.0	5.2	6.0	9.7	13.2	2.6	.0	.1
55/59	.2	.8	2.6	3.1	5.4	5.5	2.4	.1	.0	.1
50/54	.0	.0	.0	.1	.3	.1	.1	.0	.0	.1
TOTAL	3.6	15.6	16.4	9.6	13.1	18.2	19.6	3.5	.0	.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	75	71	68	63	57	55	53	62.7	757
06009	73	72	70	64	59	56	55	64.2	489
12015	71	68	66	61	57	55	54	61.5	717
18021	71	67	65	61	56	54	53	60.7	518
TOT	75	71	68	62	57	55	53	62.2	2481

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	3.0	17.9	28.6	34.9	15.7	79	364
06009	.0	5.3	27.9	31.7	27.0	8.2	75	319
12015	.0	1.3	16.1	31.1	31.9	19.6	80	373
18021	.0	.6	10.9	30.3	39.4	18.8	82	330
TOT	0	35	230	421	462	218	79	1386

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1854-1971

DECEMBER

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53	57	61	65	69	73	TOT	N FOG	WN FOG
	56	60	64	68	72	76			
11/13	.0	.0	.0	.0	.1	.1	3	.0	.2
9/10	.0	.0	.0	.0	.2	.1	4	.0	.3
7/8	.0	.0	.0	.3	.4	.0	10	.0	.6
6	.0	.0	.0	.4	.4	.0	13	.0	.8
5	.0	.0	.1	.6	.9	.0	27	.0	1.7
4	.0	.0	.6	1.8	.3	.0	44	.1	2.7
3	.0	.1	1.5	2.4	.4	.0	70	.1	4.4
2	.0	.4	3.1	3.8	.1	.0	118	.3	7.2
1	.0	.9	7.6	4.4	.5	.0	212	.1	13.2
0	.2	1.7	11.1	2.8	.2	.0	253	.1	15.9
-1	.3	4.5	9.6	1.0	.0	.0	244	.3	15.1
-2	.3	6.3	6.0	.9	.1	.0	216	.1	13.5
-3	.4	5.0	3.0	.5	.0	.0	141	.1	8.8
-4	.5	3.3	1.6	.1	.0	.0	88	.0	5.6
-5	.8	2.7	1.0	.1	.0	.0	73	.0	4.6
-6	.2	1.1	.8	.0	.0	.0	32	.1	2.0
-7/-8	.4	1.0	.1	.0	.1	.0	25	.0	1.6
-9/-10	.2	.3	.0	.0	.0	.0	7	.0	.4
-11/-13	.3	.0	.1	.0	.0	.0	5	.0	.3
TOTAL	56	730	61	301	2	1585	100.0	1.1	98.9
PCT	3.5	27.4	40.1	19.0	3.8	.1			

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.1	.0	.0	.0	.0	.4	.2	.2	.0	.0	.0	.0	.3
1-2	.2	.3	.0	.0	.0	.0	.5	.0	1.3	.0	.0	.0	.0	1.3
3-4	.0	.2	.1	.0	.0	.0	.3	.2	1.2	2.8	.0	.0	.0	4.2
5-6	.0	.2	.0	.1	.0	.0	.3	.0	1.0	3.0	.0	.0	.0	4.0
7	.0	.0	.3	.0	.0	.0	.3	.0	.0	1.8	.0	.0	.0	3.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.0	.0	.0	1.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.2	.0	1.6
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	.9	.5	.1	.0	.0	2.0	.2	3.7	7.9	2.8	.2	.0	14.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.2	.0	.0	.0	.0	.4	.2	.2	.0	.0	.0	.0	.4
1-2	.1	2.4	.4	.0	.0	.0	3.0	.0	4.5	.6	.0	.0	.0	5.1
3-4	.2	3.0	5.6	.3	.0	.0	9.0	.0	3.6	1.4	.0	.0	.0	5.3
5-6	.0	.3	5.0	.6	.0	.0	6.0	.0	2.2	1.0	.2	.0	.0	1.5
7	.0	.0	1.7	.0	.0	.0	1.7	.0	.0	.8	.0	.0	.0	.8
8-9	.0	.0	.2	.2	.0	.0	.4	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
13-16	.0	.0	.0	.1	.0	.0	.1	.0	.0	.2	.2	.0	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	5.9	12.9	1.2	.0	.0	20.6	.3	8.6	4.4	.7	.0	.0	14.0



PERIOD: (OVER-ALL) 1963-1971

DECEMBER

AREA 001A ESPERANCE BAY S  
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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S								SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.1	.0	.0	.0	.0	.6	*	1.0	.0	.0	.0	.0	1.1
1-2	.2	5.1	.9	.0	.0	.0	6.2	.0	3.1	1.1	.0	.0	.0	4.2
3-4	.0	1.4	2.0	.0	.0	.0	3.4	.0	2.9	1.6	*	.0	.0	4.6
5-6	.0	.9	2.3	.2	.0	.0	3.4	.0	.3	2.2	*	.0	.0	2.6
7	.0	.0	.3	.0	.0	.0	.3	.0	.0	1.0	.4	.0	.0	1.5
8-9	.0	.0	.2	.2	.3	.0	.7	.0	.0	.2	*	*	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2	.0	.0	.4
12	.0	.0	.0	.2	.2	.0	.4	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	7.5	5.7	.6	.9	.0	15.4	*	7.5	6.2	1.0	*	.0	14.8

W								NW							TOTAL PCT
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.5	.0	.0	.0	.0	.5	*	*	.0	.0	.0	.0	.1	
1-2	.0	2.6	.2	.0	.0	.0	2.8	.2	.4	.0	.0	.0	.0	.6	
3-4	.0	1.5	2.1	.1	.0	.0	3.7	.0	.2	.7	.0	.0	.0	.9	
5-6	.0	.3	3.8	.3	.0	.0	4.5	.0	.8	.0	.0	.0	.0	.9	
7	.0	.0	1.1	.3	.0	.0	1.4	.0	.0	*	.0	.0	.0	*	
8-9	.0	.0	.5	.9	.0	.0	1.4	.0	.0	*	.0	.0	.0	*	
10-11	.0	.0	.4	.6	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	4.9	8.0	2.5	.0	.0	15.5	.2	.7	1.6	.0	.0	.0	2.6	99.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.5	3.0	.0	.0	.0	.0	5.5	
1-2	1.0	19.6	3.0	.0	.0	.0	23.6	
3-4	.4	13.7	16.0	.8	.0	.0	30.9	
5-6	.0	3.2	17.9	1.5	.0	.0	22.7	
7	.0	.0	7.0	1.9	.0	.0	9.0	
8-9	.0	.0	1.7	2.3	.8	.0	4.6	
10-11	.0	.2	.4	1.3	.0	.0	1.9	
12	.0	.0	.2	.4	.2	.0	.8	
13-16	.0	.0	.2	.6	.2	.0	1.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.2	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.8	39.8	46.5	8.8	1.1	.0	100.0	525

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.2	4.7	5.1	4.9	1.4	.8	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	156	4
6-7	.0	.4	3.6	7.5	9.0	3.5	2.3	1.1	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	239	7
8-9	.0	.1	1.8	3.5	5.7	5.3	4.1	2.5	1.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	205	8
10-11	.0	.2	.4	1.1	1.7	2.9	2.3	.8	.5	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	88	9
12-13	.0	.0	.2	.2	.2	1.3	1.7	1.4	.7	.4	.0	.0	.1	.0	.0	.0	.0	.0	.0	53	10
>13	.0	.0	.0	.1	.2	.0	.6	.5	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	15	11
INDET	1.2	1.3	1.9	1.6	2.2	1.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	80	5
TOTAL	12	56	117	158	171	123	96	54	35	9	4	0	1	0	0	0	0	0	0	836	7
PCT	1.4	6.7	14.0	18.9	20.5	14.7	11.5	6.5	4.2	1.1	.5	.0	.1	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1909-1972  
(OVER-ALL) 1854-1972

# ANNUAL

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35.45 120.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	2.5	1.9	.9	.0	.0	.0	.0	5.3	1.0	2.6	1.0	.0	.8	.0	89.6
NE	2.4	1.8	.9	.0	.0	.0	*	5.0	1.0	1.6	1.0	.0	1.0	*	90.6
E	3.1	3.0	1.9	.0	.0	.0	.0	8.0	1.6	1.3	1.0	*	.9	*	87.3
SE	3.3	2.9	1.7	.0	.0	.0	.1	7.9	2.5	.7	.6	.1	.6	*	87.9
S	1.8	4.8	1.8	.0	.0	.0	*	8.5	2.7	.7	1.0	.0	.4	.1	86.7
SW	2.6	7.9	1.3	.0	.0	.0	.1	11.8	3.2	.7	.7	*	.4	*	83.3
W	4.1	9.0	1.7	.0	.0	.0	.1	14.9	3.8	1.4	.9	*	.5	*	78.9
NW	3.8	4.4	1.6	.0	.0	.0	.1	9.8	1.9	2.1	.9	.0	.5	.0	85.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.8	.0	1.4	.0	.0	.0	.0	2.2	1.0	1.1	.9	.0	1.8	.0	93.0
TOT PCT	3.0	5.1	1.5	.0	.0	.0	.1	9.7	2.5	1.4	.9	*	.6	*	85.2
TOT OBS: 23148															

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG SNOW	DUST	SIG WEA
0000	3.0	6.0	1.5	.0	.0	.0	*	10.5	2.2	.4	1.1	*	.9	*		85.0
0600	2.4	4.4	.9	.0	.0	.0	.1	7.7	2.9	.1	.8	*	.8	*		87.7
1200	3.5	5.3	1.4	.0	.0	.0	.1	10.2	2.1	2.6	1.0	.0	.6	*		84.2
1800	3.3	4.4	2.2	.0	.0	.0	*	9.8	2.8	2.4	.8	.1	.2	.1		84.2
TOT PCT	3.0	5.1	1.5	.0	.0	.0	.1	9.6	2.4	1.4	.9	*	.6	*		85.2
TOT OBS: 23752																

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.5	3.3	3.6	1.4	.2	*		9.0	13.4	10.2	10.8	7.6	8.5	7.1	9.3	8.4	11.0	
NE	.4	3.9	6.3	2.2	.2	*		13.0	14.6	13.3	12.0	12.4	12.5	12.3	14.7	14.1	14.0	
E	.6	4.1	4.9	.9	.1	.0		10.6	12.2	8.8	8.6	11.3	10.4	12.8	11.7	11.1	9.8	
SE	.4	3.3	2.4	.4	.1	*		6.5	11.4	6.1	5.7	6.8	5.4	7.5	5.8	7.3	5.6	
S	.7	5.4	4.3	1.3	.2	*		11.9	12.9	11.7	11.1	11.9	11.5	12.7	12.8	12.6	10.6	
SW	.5	5.8	7.7	4.0	1.0	.1		19.1	16.4	18.0	18.6	18.9	20.4	20.1	18.6	18.5	19.4	
W	.6	4.9	7.6	4.5	1.3	.2		19.1	17.0	19.2	20.1	21.3	20.0	18.5	17.0	17.5	18.1	
NW	.4	3.2	3.8	1.7	.4	*		9.5	13.9	11.5	11.3	9.4	9.1	7.3	8.0	9.1	9.5	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.4							1.4	.0	1.1	1.8	.5	1.3	1.5	2.1	1.4	1.9	
TOT OBS							32117		14.6	6487	3540	3884	2480	6660	2582	3853	2631	
TOT PCT	5.5	33.8	40.7	16.3	3.4	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	03	09	18
N	1.6	4.1	2.5	.8	*		9.0	13.4	10.4	8.0	7.7
NE	1.7	6.0	4.6	.7	*		13.0	14.6	12.8	12.4	13.0
E	2.0	5.7	2.7	.2	*		10.6	12.2	8.7	10.9	12.5
SE	1.7	3.5	1.1	.2	*		6.5	11.4	5.9	6.7	7.1
S	2.8	6.0	2.5	.6	.1		11.9	12.9	11.5	11.7	12.7
SW	2.6	7.9	5.8	2.3	.4		19.1	16.4	18.3	19.5	19.7
W	2.4	7.0	6.4	2.8	.5		19.1	17.0	19.5	20.8	18.2
NW	1.6	4.1	2.7	.9	.1		9.5	13.9	11.4	9.3	7.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0
CALM	1.4						1.4	.0	1.4	.8	1.7
TOT OBS					32117				10077	6364	9242
TOT PCT	17.9	44.2	28.3	8.4	1.2		100.0		100.0	100.0	100.0

PERIOD: (PRIMARY) 1909-1972  
(OVER-ALL) 1854-1972

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TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	1.4	4.5	33.4	40.5	16.2	3.6	.3	14.6	100.0	10027
06009	.8	3.3	31.1	42.8	17.8	3.6	.4	15.4	100.0	6364
12015	1.7	4.3	35.4	39.0	15.8	3.4	.4	14.4	100.0	9242
18021	1.6	4.1	34.5	41.1	15.6	2.9	.2	14.3	100.0	6484
TOT								14.6		32117
PCT	1.4	4.1	33.8	40.7	16.3	3.4	.3	100.0		

TABLE 5

## PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.7	1.1	2.6	1.7		4.2
NE	4.9	2.1	3.7	2.3		4.1
E	2.8	1.5	4.1	2.8		5.0
SE	1.0	1.1	2.7	2.2		5.3
S	1.9	2.3	5.3	2.9		5.3
SW	3.4	4.2	7.9	3.4		5.0
W	4.2	3.8	7.7	3.6		4.8
NW	2.5	1.6	3.2	1.6		4.5
VAR	.0	.0	.0	.0		.0
CALM	.4	.1	.2	.2		3.9
TOT OBS					13969	4.8
TOT PCT	23.9	17.7	37.6	20.8	100.0	

TABLE 6

## PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8 AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	*	.1	.4	1.1	.6	.4	.2	.1	.1	5.2	
NE	.0	*	.1	.8	1.5	1.1	.5	.2	.1	.1	8.6	
E	*	*	.1	.9	2.0	1.3	.7	.2	*	.1	5.7	
SE	*	*	.1	.7	1.5	1.1	.5	.1	*	*	3.0	
S	*	*	.1	1.0	2.6	1.8	.9	.3	.1	.1	5.6	
SW	*	*	.2	1.5	3.6	2.1	1.2	.4	*	.1	9.3	
W	*	*	.3	1.7	3.3	1.6	1.0	.4	.1	*	10.8	
NW	*	.0	.1	.6	1.3	.7	.4	.2	*	.1	5.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	*	.1	.1	.1	*	*	.0	*	.6	
TOT OBS											13969	
TOT PCT	.1	.1	1.0	7.7	17.0	10.4	5.7	2.0	.4	.8	54.9	100.0

TABLE 7

## CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
* OR >6500	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
* OR >5000	2.7	3.1	3.1	3.2	3.2	3.2	3.2	3.2
* OR >3500	7.6	8.7	8.8	8.9	8.9	8.9	8.9	8.9
* OR >2000	16.5	18.9	19.2	19.2	19.2	19.2	19.2	19.3
* OR >1000	30.2	35.3	36.0	36.1	36.1	36.1	36.1	36.2
* OR >600	35.4	42.5	43.6	43.7	43.7	43.7	43.7	43.7
* OR >300	35.8	43.4	44.5	44.7	44.7	44.7	44.8	44.8
* OR >150	35.9	43.5	44.6	44.8	44.8	44.8	44.9	44.9
* OR >0	35.9	43.6	44.7	44.9	44.9	44.9	44.9	44.9

TOTAL NUMBER OF OBS: 14230

PCT FREQ NH <5/8: 55.1

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	10.7	11.6	11.7	11.0	9.4	7.9	9.7	11.5	16.5	* 15620

PERIOD: (PRIMARY) 1909-1972  
(OVER-ALL) 1854-1972

ANNUAL

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	*	*	*	.0	.0	.0	*	
	NO PCP	.0	*	*	*	*	*	*	.0	.0	.0	*	
	TOT %	.0	*	*	*	*	*	*	.0	.0	.0	*	.1
1/2<1	PCP	*	*	*	*	*	*	*	*	.0	.0	*	.1
	NO PCP	.1	.1	*	*	*	*	.1	*	.0	.0	*	.4
	TOT %	.1	.1	.1	*	*	.1	.1	*	.0	.0	*	.5
1<2	PCP	*	*	*	.0	*	*	*	*	.0	.0	*	.2
	NO PCP	*	.1	.1	*	*	*	.1	*	.0	*	*	.4
	TOT %	*	.1	.1	*	.1	.1	.1	*	.0	*	*	.6
2<5	PCP	*	*	.1	*	*	.1	.2	.1	.0	*	*	.6
	NO PCP	.1	.1	*	*	.1	.1	.1	*	.0	*	*	.6
	TOT %	.1	.1	.1	.1	.1	.2	.3	.2	.0	*	*	1.2
5<10	PCP	.3	.4	.4	.3	.6	1.5	2.1	.6	.0	*	*	6.3
	NO PCP	2.4	3.7	2.9	1.7	3.4	5.7	5.0	2.4	.0	.2	*	27.4
	TOT %	2.8	4.1	3.3	2.1	4.0	7.2	7.1	3.0	.0	.2	*	33.7
10+	PCP	.2	.1	.1	.1	.3	.6	.8	.3	.0	*	*	2.5
	NO PCP	5.4	8.3	7.1	4.4	7.6	11.1	11.0	6.0	.0	.7	*	61.5
	TOT %	5.5	8.4	7.2	4.5	7.9	11.7	11.8	6.3	.0	.7	*	64.0
TOT OBS		23141											
TOT PCT		8.5	12.9	10.8	6.7	12.1	19.2	19.4	9.5	.0	.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	*	*	.0	.0	*	*	
	4-10	.0	.0	*	*	*	*	*	.0	.0	*	*	
	11-21	.0	*	*	.0	*	*	*	.0	.0	*	*	
	22+	.0	.0	.0	.0	*	*	*	.0	.0	*	*	
	TOT %	.0	*	*	*	*	*	*	.0	.0	*	*	.1
1/2<1	0-3	*	*	*	.0	*	*	*	.0	.0	.0	*	*
	4-10	*	*	*	*	*	*	*	*	.0	.0	*	.2
	11-21	*	*	*	*	*	*	*	*	.0	.0	*	.2
	22+	*	*	*	.0	.0	*	*	*	.0	.0	*	.1
	TOT %	.1	.1	.1	*	*	.1	.1	*	.0	.0	*	.4
1<2	0-3	*	*	*	*	*	*	*	*	.0	*	*	.1
	4-10	*	*	*	*	*	*	*	*	.0	*	*	.2
	11-21	*	*	*	*	*	*	*	*	.0	*	*	.2
	22+	*	*	*	*	*	.1	*	*	.0	*	*	.2
	TOT %	.1	.1	.1	*	.1	.1	.1	.1	.0	*	*	.7
2<5	0-3	*	.0	.0	.0	.0	*	.0	*	.0	*	*	*
	4-10	*	*	*	*	*	*	*	*	.0	*	*	.2
	11-21	*	.1	.1	*	*	.1	.1	.1	.0	*	*	.5
	22+	*	*	*	*	*	.1	.2	.1	.0	*	*	.5
	TOT %	.1	.1	.1	.1	.1	.2	.3	.2	.0	*	*	1.2
5<10	0-3	.1	.1	.2	.2	.2	.2	.2	.1	.0	.2	1.5	
	4-10	.8	1.1	1.1	.7	1.5	1.7	1.2	.8	.0	*	8.9	
	11-21	1.1	1.9	1.5	.8	1.4	2.6	2.5	1.1	.0	*	13.0	
	22+	.6	.8	.4	.2	.7	2.2	2.7	.8	.0	*	8.4	
	TOT %	2.6	3.9	3.2	1.9	3.8	6.7	6.6	2.8	.0	.2	31.7	
10+	0-3	.3	.3	.3	.3	.4	.3	.4	.3	.0	.9	3.4	
	4-10	2.2	2.6	3.0	2.5	3.9	4.0	3.5	2.3	.0	*	24.1	
	11-21	2.4	4.5	3.7	1.5	3.0	5.1	5.2	2.6	.0	*	28.0	
	22+	.9	1.3	.5	.2	.7	2.5	2.9	1.2	.0	*	10.3	
	TOT %	5.8	8.8	7.5	4.5	8.1	11.9	12.0	6.4	.0	.9	65.7	
TOT OBS		25718											
TOT PCT		8.6	13.0	11.0	6.6	12.1	19.1	19.1	9.5	.0	1.1	100.0	

PERIOD: (PRIMARY) 1909-1972  
(OVER-ALL) 1854-1972

ANNUAL

AREA 0016 ESPERANCE BAY S  
35.45 120.6F

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL OBS	NH <5/8 ANY HGT	TOTAL OBS
00003	.1	.2	1.1	9.0	19.3	11.6	6.2	2.1	.4	1.0	50.9	49.1	3733
06009	*	.1	.9	7.0	14.8	9.3	5.7	1.7	.4	.5	40.4	59.6	3855
12015	.1	.1	.9	6.2	14.9	8.9	4.6	1.8	.4	.8	38.5	61.5	3714
18021	.2	.1	1.0	6.9	15.7	9.8	5.5	1.9	.5	.7	42.3	57.7	3595
TOT													14897
PCT	.1	.1	1.0	7.3	16.2	9.9	5.5	1.9	.4	.8	43.0	57.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	.6	.7	1.1	33.9	63.6	7291
06009	.1	.4	.5	1.4	25.9	71.7	5516
12015	.1	.5	1.2	1.4	37.1	59.8	7415
18021	.1	.4	.4	1.2	28.9	69.1	5602
TOT							25824
PCT	.1	.5	.8	1.2	32.0	65.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ ANDS+	NH <5/8 AND 5+	TOTAL OBS
00003	.1	1.5	11.9	41.3	46.9	3589
06009	*	1.2	9.5	32.8	57.6	3681
12015	.1	1.0	8.7	32.1	59.2	3529
18021	.2	1.4	9.7	34.8	55.5	3431
TOT						14230
PCT	.1	1.3	9.9	35.3	54.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	*	*	*	*	*	.0	.1	
70/74	.0	*	*	.1	.4	.4	.5	.1	1.5	
65/69	.0	*	.1	.5	2.0	4.5	7.2	3.9	18.2	
60/64	.0	*	.2	1.5	7.6	11.7	12.0	4.9	37.9	
55/59	.0	.0	.1	1.3	6.4	11.4	10.3	4.1	33.5	
50/54	.0	.0	*	.7	2.3	2.1	2.4	1.0	8.5	
45/49	.0	.0	*	*	.1	.1	.1	.1	.3	
TOTAL									17803	100.0
PCT	.0	*	.3	4.2	18.8	30.2	32.5	14.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	*	*	*	.0	*	*	*	.0	.0	.0
70/74	.2	.3	.3	.1	.1	.1	.2	.1	.0	*
65/69	1.8	4.6	3.5	1.0	1.3	2.1	2.3	1.4	.0	.2
60/64	3.9	5.0	4.6	2.8	4.1	6.0	7.1	4.0	.0	.4
55/59	2.3	2.6	2.3	2.1	4.3	7.9	8.2	3.5	.0	.4
50/54	.2	.2	.3	.5	2.1	2.9	1.7	.3	.0	.1
45/49	.0	.0	.0	*	.1	.1	.1	*	.0	.0
TOTAL	8.3	12.8	11.0	6.6	12.0	19.2	19.6	9.3	.0	1.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	79	69	66	61	55	53	46	60.9	9907
06009	78	70	67	62	56	54	47	61.9	6305
12015	77	68	65	60	55	53	47	60.2	9287
18021	73	66	64	60	54	52	47	59.6	6584
TOT	79	69	66	61	55	53	46	60.6	32083

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	4.6	18.1	28.8	33.1	15.4	78	4923
06009	.0	7.1	25.2	32.1	26.9	8.7	75	4085
12015	.0	3.2	16.3	31.0	34.5	15.1	79	4989
18021	.0	3.9	16.3	28.5	34.4	16.8	79	4210
TOT	0	837	3409	5486	3895	2580	78	18207



PERIOD: (PRIMARY) 1909-1972  
(OVER-ALL) 1854-1972

# ANNUAL

AREA 0016 ESPERANCE BAY S  
35.45 170.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45	49	53	57	61	65	69	73	77	TOT	W FOG	WD FOG
	48	52	56	60	64	68	72	76	80			
14/16	.0	.0	.0	.0	.0	.0	.0	*	.0	2	.0	*
11/13	.0	.0	.0	*	*	*	*	*	*	18	.0	.1
9/10	.0	.0	*	*	*	*	*	*	*	32	.0	.2
7/8	.0	.0	*	.1	.1	.1	.1	.1	.0	95	*	.5
6	.0	.0	.0	*	.1	.2	.2	*	.0	97	*	.5
5	.0	.0	.0	.1	.3	.4	.3	*	.0	218	*	1.1
4	.0	.0	*	.2	.6	.7	.4	*	.0	372	*	1.9
3	.0	.0	.1	.6	1.3	1.4	.5	*	.0	768	.1	3.8
2	.0	.0	.1	1.6	2.2	2.1	.5	*	.0	1301	.1	6.5
1	.0	.0	.3	2.8	3.3	3.3	.4	.0	.0	1972	.2	9.8
0	.0	*	.7	4.3	4.7	3.4	.2	*	.0	2648	.2	13.2
-1	.0	*	1.6	4.7	5.0	2.4	.1	.0	.0	2767	.1	13.8
-2	.0	.1	2.1	4.2	4.3	1.5	*	.0	.0	2403	.1	12.0
-3	.0	.2	2.6	4.0	3.3	.7	*	.0	.0	2150	.1	10.7
-4	.0	.4	2.5	3.1	2.1	.3	*	.0	.0	1632	.1	8.2
-5	*	.6	1.9	2.3	1.3	.1	*	.0	.0	1229	*	6.2
-6	*	.6	1.4	1.4	.7	.1	.0	.0	.0	796	*	4.0
-7/-8	*	.7	1.7	1.4	.4	*	*	.0	.0	837	*	4.2
-9/-10	*	.3	.8	.4	.1	.0	.0	.0	.0	317	.0	1.6
-11/-13	*	.3	.3	.1	*	*	.0	.0	.0	139	*	.7
-14/-16	*	*	*	*	.0	.0	.0	.0	.0	20	.0	.1
TOTAL										19813		
PCT	.1	3.1	16.1	31.2	29.7	16.8	2.7	.3	*	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.4	*	.0	.0	.0	.5	.1	.3	*	.0	.0	.0	.5
1-2	.1	1.3	.3	.0	.0	.0	1.7	.1	1.6	.6	.0	.0	.0	2.3
3-4	.0	.8	1.4	.1	.0	.0	2.3	*	1.1	2.5	.1	.0	.0	3.7
5-6	.0	.2	1.3	.3	*	.0	1.8	.0	.3	2.7	.4	.0	.0	3.4
7	.0	*	.5	.3	*	.0	.8	.0	*	1.2	.6	*	.0	1.8
8-9	.0	*	.1	.3	*	.0	.4	.0	*	.5	.2	*	.0	.4
10-11	.0	.0	.1	.1	.1	.0	.2	.0	*	.1	.3	*	.0	.5
12	.0	.0	*	*	*	.0	.1	.0	.0	*	.1	*	.0	.2
13-16	.0	.0	.0	*	*	.0	*	.0	.0	.0	.1	*	.0	.1
17-19	.0	.0	.0	.0	*	.0	*	.0	*	.0	.0	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	*
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.7	3.7	1.1	.2	.0	7.9	.3	3.3	7.4	2.2	.1	.0	13.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.4	*	.0	.0	.0	.6	.1	.3	*	.0	.0	.0	.4
1-2	.1	1.9	.6	.0	.0	.0	2.6	.1	1.9	.3	.0	.0	.0	2.3
3-4	*	1.3	2.3	.1	.0	.0	3.8	*	1.1	1.1	.1	.0	.0	2.3
5-6	.0	.3	2.4	.3	.0	.0	3.0	.0	.2	1.0	.1	.0	.0	1.3
7	*	*	.8	.2	*	.0	1.1	.0	*	.3	.1	.0	.0	.4
8-9	.0	.0	.2	.2	.0	.0	.4	.0	*	.1	*	.0	.0	.2
10-11	.0	.0	*	*	*	.0	.1	.0	.0	*	*	.0	.0	.1
12	.0	*	.0	*	*	.0	*	.0	.0	*	*	.0	.0	.1
13-16	.0	.0	.0	*	*	.0	*	.0	.0	*	*	.0	.0	.1
17-19	.0	*	.0	.0	.0	.0	*	.0	.0	.0	*	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.9	6.4	.8	.1	.0	11.5	.3	3.5	7.8	.5	*	.0	7.1

PERIOD: (OVER-ALL) 1963-1972

ANNUAL

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.3	.4	.0	.0	.0	.0	.7	.1	.5	.0	.0	.0	.0	.0	.6	.3
1-2	.2	2.5	.5	.0	.0	.0	3.3	.2	2.3	.6	.0	.0	.0	.0	3.1	.6
3-4	.0	1.7	1.8	.1	.0	.0	3.6	.0	1.9	2.6	.3	.0	.0	.0	4.8	.3
5-6	.0	.4	1.7	.3	.0	.0	2.4	.0	.5	2.8	.7	.1	.0	.0	3.9	.7
7	.0	.0	.6	.2	.0	.0	1.1	.0	.1	1.4	.9	.1	.0	.0	2.6	.1
8-9	.0	.0	.1	.2	.1	.0	.4	.0	.0	.5	.8	.2	.0	.0	1.5	.2
10-11	.0	.0	.0	.1	.0	.0	.2	.0	.0	.2	.4	.1	.0	.0	.7	.3
12	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.2	.0	.0	.0	.3	.3
13-16	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.2	.0	.0	.2	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.1
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	.1
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	.1
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	5.1	4.9	1.1	.2	.0	11.8	.3	5.4	8.1	3.6	.9	.1	.1	18.4	.3

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.1	.4	.0	.0	.0	.0	.5	.1	.2	.0	.0	.0	.0	.0	.3	.3	.3
1-2	.1	2.1	.6	.0	.0	.0	2.8	.1	1.4	.3	.0	.0	.0	.0	1.8	.3	1.8
3-4	.0	1.6	2.5	.3	.0	.0	4.4	.0	.9	1.5	.2	.0	.0	.0	2.7	.3	2.7
5-6	.0	.3	3.2	1.0	.0	.0	4.5	.0	.2	1.5	.4	.0	.0	.0	2.1	.3	2.1
7	.0	.1	1.4	.9	.3	.0	3.2	.0	.0	.7	.5	.1	.0	.0	1.3	.3	1.3
8-9	.0	.0	.1	.6	.2	.0	1.0	.0	.0	.1	.1	.1	.0	.0	.2	.3	.2
10-11	.0	.0	.0	.3	.1	.0	.5	.0	.0	.0	.1	.1	.0	.0	.1	.3	.1
12	.0	.0	.0	.2	.3	.0	.5	.0	.0	.0	.1	.1	.0	.0	.1	.3	.1
13-16	.0	.0	.0	.1	.1	.0	.5	.0	.0	.0	.1	.1	.0	.0	.1	.3	.1
17-19	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
20-22	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
23-25	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
26-32	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	4.6	8.2	4.8	1.4	.1	19.3	.2	2.9	4.2	1.8	.4	.0	.0	9.5	98.7	.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.0	3.0	.1	.0	.0	.0	6.1	6.1
1-2	1.0	15.0	3.7	.0	.0	.0	19.7	19.7
3-4	.2	10.3	15.6	1.2	.0	.0	27.3	27.3
5-6	.0	2.3	16.4	3.5	.1	.0	22.3	22.3
7	.0	.4	6.9	4.1	.5	.0	12.0	12.0
8-9	.0	.1	1.7	3.3	.5	.0	5.6	5.6
10-11	.0	.1	.5	1.8	.5	.0	2.9	2.9
12	.0	.0	.2	.9	.3	.0	1.4	1.4
13-16	.0	.0	.1	.6	.6	.0	1.3	1.3
17-19	.0	.0	.1	.2	.2	.0	.5	.5
20-22	.0	.0	.0	.0	.2	.0	.2	.2
23-25	.0	.0	.0	.0	.3	.0	.3	.3
26-32	.0	.0	.0	.1	.2	.1	.3	.3
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	4.3	31.2	45.3	15.7	3.3	.3	100.0	7814

PERIOD: (OVER-ALL) 1949-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
4-6	.6	3.3	5.4	3.3	1.8	.9	.5	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1877	4
6-7	*	.2	3.2	5.7	5.9	3.2	2.1	1.0	.9	.2	.1	.1	.1	*	.0	.0	.0	.0	.0	.0	2608	7
8-9	*	.1	1.1	3.7	5.8	5.3	3.8	1.9	1.8	.5	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	2833	9
10-11	.0	.1	.4	1.3	2.6	3.0	2.6	1.7	2.1	.6	.4	.1	.2	*	.0	.0	.0	.0	.0	.0	1763	10
12-13	.0	.0	.2	.4	.7	1.2	1.5	1.1	1.7	.4	.4	.2	.3	*	.0	.0	.0	.0	.0	.0	935	12
>13	.0	.0	.0	.1	.2	.5	.6	.5	.8	.2	.3	.2	.4	*	.0	.0	.0	.0	.0	.0	459	14
INDDET	.7	1.0	1.2	1.3	1.7	1.3	1.0	.4	.6	.2	.1	*	*	*	.0	.0	.0	.0	.0	.0	1100	7
TOTAL																					11575	
PCT	1.3	4.7	11.4	15.9	18.7	15.3	11.9	6.8	8.1	2.1	1.7	.7	1.2	*	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1909-1972  
(OVER-ALL) 1854-1972

TABLE 20

AREA 0016 ESPERANCE BAY S  
35.45 120.6E

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
82/84	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
81/82	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
79/80	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
77/78	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
75/76	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
73/74	.0	.1	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	15	.1
71/72	.6	.8	1.3	.9	.4	.2	.0	.0	.0	.0	.0	.1	109	.4
69/70	3.3	6.6	4.6	2.8	1.6	.7	.4	.1	.0	.0	.0	.0	530	1.9
67/68	13.1	28.1	24.0	10.1	5.8	3.7	1.4	.9	.5	.2	.7	4.1	2334	8.2
65/66	37.8	39.6	38.6	27.6	13.4	8.8	5.5	2.2	1.1	1.8	3.9	14.6	4720	16.6
63/64	34.8	21.0	25.4	36.8	30.6	16.0	10.6	6.8	4.9	5.1	13.8	32.6	5799	20.4
61/62	11.9	3.3	5.1	16.6	29.1	26.4	16.0	12.7	12.4	14.7	27.7	32.8	4880	17.2
59/60	7.1	.4	.6	3.8	15.3	28.3	29.6	25.2	24.2	29.8	34.3	11.9	4682	16.5
57/58	.2	.2	.1	.6	3.0	12.4	24.3	33.0	35.7	32.6	15.9	2.4	3587	12.6
55/56	.0	.0	.0	.4	.5	2.8	10.0	15.5	17.1	12.9	3.0	.5	1393	4.9
53/54	.1	.0	.0	.2	.1	.3	1.4	2.7	3.2	2.4	.6	.0	242	.9
51/52	.0	.0	.0	.2	.1	.1	.5	.6	.6	.4	.2	.0	58	.2
49/50	.0	.0	.0	.0	.0	.1	.2	.0	.1	.0	.0	.0	11	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	2732	2496	2777	2655	2534	2182	2189	2064	2021	2649	2269	2296	28364	100.0
MEAN	64.6	65.7	65.4	64.1	62.7	61.1	59.6	58.7	58.4	58.7	60.4	62.7	61.8	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1016	1015	1015	1015	1015	1015	1015	1015	1015	1581
FEB	1016	1017	1016	1014	1016	1014	1015	1014	1016	1569
MAR	1018	1018	1017	1017	1018	1019	1017	1018	1017	1979
APR	1019	1019	1017	1017	1018	1019	1017	1018	1018	2034
MAY	1017	1017	1016	1015	1017	1016	1017	1016	1017	2083
JUN	1015	1015	1014	1015	1015	1015	1015	1015	1015	1860
JUL	1016	1015	1016	1013	1017	1013	1016	1012	1016	1708
AUG	1016	1015	1016	1016	1017	1017	1017	1015	1016	1730
SEP	1017	1014	1017	1016	1017	1017	1017	1016	1017	1663
OCT	1016	1015	1015	1015	1017	1017	1015	1015	1016	1929
NOV	1015	1017	1015	1015	1016	1016	1015	1015	1015	1686
DEC	1015	1016	1015	1015	1014	1015	1013	1014	1015	1594
ANN	1016	1016	1016	1015	1017	1016	1016	1015	1016	21416
OBS	4765	1356	3858	850	4937	868	3882	900		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	993	1000	1004	1012	1016	1020	1024	1027	1031
FEB	993	1000	1005	1012	1016	1019	1025	1028	1032
MAR	999	1002	1006	1014	1018	1022	1027	1030	1036
APR	990	999	1005	1013	1018	1023	1028	1031	1034
MAY	986	995	1002	1011	1017	1022	1029	1032	1037
JUN	984	992	1000	1008	1015	1022	1028	1032	1036
JUL	978	990	999	1009	1017	1023	1030	1034	1037
AUG	988	994	1000	1010	1016	1023	1030	1035	1040
SEP	992	996	1002	1011	1017	1022	1029	1032	1035
OCT	989	996	1002	1011	1016	1021	1027	1031	1036
NOV	984	999	1004	1011	1015	1020	1025	1030	1035
DEC	992	998	1004	1010	1015	1019	1025	1027	1033

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969

JANUARY

AREA 0017 CAPE LEEUWIN  
33.95 114.06

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
N	2.1	4.2	3.1	.0	.0	.0	4.2	13.5	.0	6.3	2.1	.0	4.2	.0
NE	1.7	.0	.4	.0	.0	.0	.0	2.2	.0	6.1	.0	.0	5.7	.0
E	.3	.0	1.2	.0	.0	.0	.0	1.5	1.5	.6	1.3	.0	3.8	.4
SE	.4	1.5	.5	.0	.0	.0	.0	2.4	.0	.6	1.5	.0	2.5	.0
S	.7	2.0	.3	.0	.0	.0	.0	3.0	.8	.6	2.4	.0	2.4	.0
SW	1.3	4.1	1.8	.0	.0	.0	.0	7.1	1.0	.5	1.6	.0	1.6	.0
W	.5	2.8	2.4	.0	.0	.0	.0	5.8	2.0	.0	.4	.0	.5	.0
NW	1.1	.0	2.8	.0	.0	.0	.0	4.0	.0	1.1	1.1	.0	2.3	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0
TOT PCT	.7	2.0	1.0	.0	.0	.0	*	3.8	.8	.7	1.6	.0	2.4	*
TOT OBS:	2048													90.8

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
00003	.9	2.7	1.4	.0	.0	.0	.0	5.0	.7	.7	1.8	.0	3.2	.0
06009	.2	1.6	.6	.0	.0	.0	.2	2.7	.8	.2	1.2	.0	1.9	.2
12015	1.0	1.9	.2	.0	.0	.0	.0	3.1	.5	.9	1.9	.0	3.3	.0
18021	.8	1.5	2.1	.0	.0	.0	.0	4.4	1.1	1.5	1.5	.0	.8	.0
TOT PCT	.8	2.0	1.0	.0	.0	.0	*	3.8	.8	.8	1.6	.0	2.4	*
TOT OBS:	2096													90.7

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	.2	.5	.4	.1	*	.0		1.0	9.8		2.3	1.6	1.4	.4	.1	.0	.6
NE	.1	.9	1.4	.3	*	*		2.7	13.6		6.5	3.5	1.5	.4	1.2	1.0	2.3
E	.4	3.3	6.5	2.1	.2	.0		12.4	15.2		15.4	11.8	13.9	9.0	9.1	12.4	13.3
SE	.4	7.5	13.2	4.3	.5	.1		25.9	15.3		25.9	21.3	28.9	27.3	26.1	23.4	26.2
S	.7	9.3	12.9	3.0	.1	.1		26.1	13.4		18.8	25.4	24.0	29.5	32.1	31.1	26.5
SW	.7	7.8	8.1	2.2	.3	*		19.0	13.3		18.1	18.3	17.9	19.4	20.2	21.0	18.6
W	.5	4.1	3.9	1.2	.2	.0		9.8	12.9		8.7	13.5	9.7	11.5	9.3	9.7	8.4
NW	.2	1.1	.7	.2	.0	.0		2.2	10.7		2.7	3.3	2.1	1.8	1.7	.8	2.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0
CALM	.8							.8	.0		1.6	1.3	.5	.7	.2	.4	.6
TOT OBS	115	1022	1397	398	37	5	2974		13.8		555	315	380	272	588	239	341
TOT PCT	3.9	34.4	47.0	13.4	1.2	.2		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-6	7-16	17-27	28-40	41+						00	03	06	09	12	15	18
N	.5	.4	.1	*	.0			1.0	9.8		2.0	1.0	.1	.1	.0		
NE	.5	1.3	.9	*	*			2.7	13.6		5.4	1.0	1.1	2.8			
E	1.4	5.5	4.6	.7	.1			12.4	15.2		14.1	11.8	10.0	13.5			
SE	2.5	12.3	9.4	1.0	.1			25.9	15.3		24.2	28.3	25.3	26.6			
S	4.0	14.0	7.4	.6	.1			26.1	13.4		21.2	26.3	31.8	25.2			
SW	3.1	10.2	4.7	.9	.1			19.0	13.3		18.2	18.5	20.5	18.8			
W	2.5	4.6	2.1	.6	*			9.8	12.9		10.4	10.5	9.4	9.0			
NW	.8	1.0	.3	.1	.0			2.2	10.7		3.0	2.0	1.5	2.5			
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0			
CALM	.8							.8	.0		1.5	.6	.2	.6			
TOT OBS	480	1467	879	137	11	2974			13.8		870	652	827	625			
TOT PCT	16.1	49.3	29.6	4.6	.4			100.0			100.0	100.0	100.0	100.0			

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969

JANUARY

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND DIR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	1.5	4.4	36.6	45.2	11.4	.9	.1	13.0	100.0	870
06009	.6	2.5	31.6	50.0	14.4	.9	.0	14.3	100.0	652
12015	.2	2.5	33.5	45.6	16.3	1.7	.1	14.4	100.0	827
18021	.6	2.7	35.4	48.2	11.2	1.4	.5	13.6	100.0	625
TOT	23	92	1022	1397	398	37	5	13.8		2974
PCT	.8	3.1	34.4	47.0	13.4	1.2	.2	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.4	.3	.2	.2	3.8	3.8
NE	1.6	.3	.6	.5	3.2	3.2
E	7.3	2.1	3.2	1.6	3.1	3.1
SE	11.8	4.3	7.5	2.9	3.5	3.5
S	8.8	4.5	8.3	4.7	4.1	4.1
SW	4.5	3.2	6.5	3.9	4.8	4.8
W	2.5	1.9	2.9	1.8	4.5	4.5
NW	.4	.4	.9	.4	4.9	4.9
VAR	.0	.0	.0	.0	.0	.0
CALM	.0	.1	.2	.0	4.6	4.6
TOT OBS	410	192	337	171	1116	4.0
TOT PCT	37.3	17.2	30.2	15.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)  
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.8
NE	.0	.0	.0	.1	.4	.2	.0	.0	.0	.0	.0	2.1
E	.0	.0	.0	.3	.7	1.6	.6	.1	.0	.4	.4	10.5
SE	.1	.0	.2	.5	3.3	2.5	1.5	.2	.0	.1	.1	18.0
S	.1	.1	.2	1.0	4.6	2.7	1.3	.3	.0	.1	.1	15.3
SW	.2	.0	.4	1.4	3.3	1.7	.9	.1	.0	.2	.2	9.9
W	.0	.0	.0	1.0	1.3	.8	.4	.2	.0	.0	.0	5.4
NW	.0	.0	.0	.1	.5	.1	.1	.1	.0	.0	.0	1.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT OBS	4	1	10	49	160	109	56	11	0	8	708	1116
TOT PCT	.4	.1	.9	4.4	14.3	9.8	5.0	1.0	.0	.7	63.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	VSBY (NM)	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.6	.7	.7	.7	.7	.7	.7	.7	.7
= OR >4000	1.4	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
= OR >3500	6.3	6.8	6.9	6.9	6.9	6.9	6.9	6.9	6.9
= OR >3000	13.7	16.0	16.6	16.6	16.6	16.6	16.6	16.6	16.6
= OR >2500	25.8	30.0	30.9	30.9	30.9	30.9	30.9	30.9	30.9
= OR >2000	28.9	34.2	35.3	35.3	35.3	35.3	35.3	35.3	35.3
= OR >1500	29.6	35.0	36.1	36.2	36.2	36.2	36.2	36.2	36.2
= OR >1000	29.6	35.0	36.2	36.3	36.3	36.3	36.3	36.3	36.3
= OR >500	29.6	35.0	36.2	36.3	36.4	36.5	36.5	36.5	36.5
TOTAL	335	396	409	410	411	412	413	414	414

TOTAL NUMBER OF OBS: 1130

PCT FREQ NH < 5/8: 63.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	20.0	16.5	10.2	9.5	6.7	5.7	7.9	11.0	12.2	.3	1221



PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969

JANUARY

AREA 0017 CAPE LEEUWIN  
93.95 114.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	*	.1	.1	*	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	*	.1	.1	*	.0	.0	.0	.0	.0	.2
1/2<1	PCP	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*
	NO PCP	*	.0	.1	*	.1	.2	.0	*	.0	.0	*	.5
	TOT %	*	.0	.1	*	.1	.2	*	*	.0	.0	*	.6
1<2	PCP	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	*
	NO PCP	.0	.1	*	.4	.5	.3	*	.0	.0	.0	.0	1.4
	TOT %	.0	.1	*	.4	.5	.3	*	.0	.0	.0	.0	1.4
2<5	PCP	*	.0	.0	.0	.1	.1	.C	*	.0	.0	.0	.3
	NO PCP	.0	.0	.0	.2	.1	.2	*	.0	.0	.0	.0	.5
	TOT %	*	.0	.0	.2	.2	.3	*	*	.0	.0	.0	.8
5<10	PCP	.1	*	.1	.5	.6	1.0	.3	*	.0	.0	.0	2.7
	NO PCP	.3	.9	4.8	8.9	8.8	7.0	3.1	.8	.0	.1	.1	34.7
	TOT %	.5	.9	4.9	9.4	9.4	8.0	3.4	.8	.0	.1	.1	37.4
10+	PCP	.0	*	.1	.1	*	.2	.1	*	.0	.0	.0	.7
	NO PCP	.6	1.8	8.0	15.6	15.7	10.3	5.3	1.2	.0	.2	.2	58.8
	TOT %	.6	1.8	8.1	15.7	15.7	10.5	5.5	1.3	.0	.2	.2	59.5
TOT OBS		2046											
TOT PCT		1.2	2.8	13.1	25.9	26.1	19.4	9.0	2.2	.0	.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1
	11-21	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	22+	.0	.0	*	*	.0	.0	.0	.0	.0	.0	*	
	TOT %	.0	.0	*	.1	.1	*	.0	.0	.0	.0	.0	.2
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*
	4-10	.0	.0	*	*	*	.1	*	.0	.0	.0	.3	
	11-21	*	.0	*	.0	*	.1	.0	*	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	TOT %	*	.0	.1	*	.1	.2	*	*	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	*	*	.0	.0	.0	.0	*	*
	4-10	.0	.1	*	.0	*	*	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.3	.3	.2	*	*	.0	.0	.9	
	22+	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
	TOT %	.0	.1	*	.3	.5	.3	*	*	.0	.0	1.3	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	.1	*	*	.0	.0	.0	.2	
	11-21	*	.0	.0	*	.1	.1	*	*	.0	.0	.4	
	22+	.0	.0	.0	.1	.2	.2	.0	.0	.0	.0	.5	
	TOT %	*	.0	.0	.2	.4	.3	.1	*	.0	.0	1.0	
5<10	0-3	.1	*	.1	.2	.1	.4	.2	.1	.0	.1	1.3	
	4-10	.2	.2	.7	2.6	2.9	2.4	1.3	.4	.0	.0	10.6	
	11-21	.1	.6	2.7	4.3	4.5	3.4	1.4	.2	.0	.0	17.3	
	22+	.1	.1	1.0	2.0	1.2	1.2	.4	.1	.0	.0	6.1	
	TOT %	.4	.9	4.6	9.0	8.8	7.5	3.2	.8	.0	.1	35.3	
10+	0-3	*	.0	.1	.2	.5	.2	.1	.1	.0	.2	1.4	
	4-10	.3	.6	2.3	4.7	6.2	5.4	2.7	.7	.0	.0	22.8	
	11-21	.2	1.0	4.6	8.5	8.3	5.0	2.3	.4	.0	.0	30.4	
	22+	.0	.2	.9	2.5	1.7	.7	.7	.1	.0	.0	7.0	
	TOT %	.6	1.8	7.9	15.9	16.7	11.2	5.8	1.3	.0	.2	61.5	
TOT OBS		2227											
TOT PCT		1.1	2.7	12.7	25.6	26.5	19.6	9.2	2.2	.0	.4	100.0	

## JANUARY

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969AREA 0017 CAPE LEEUWIN  
33.95 114.6F

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOOR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.3	.0	1.0	5.1	17.7	11.2	6.8	1.0	.0	1.4	44.6	55.4	294
06009	.3	.0	.3	3.5	9.6	8.3	4.2	1.6	.0	.3	28.2	71.8	312
12015	.7	.3	1.0	2.7	14.1	9.7	4.0	.7	.0	.7	33.9	66.1	298
18021	.0	.0	1.1	5.7	13.2	8.2	4.6	.7	.0	.4	33.9	66.1	280
TOT	4	1	10	50	161	111	58	12	0	8	415	769	1184
PCT	.3	.1	.8	4.2	13.6	9.4	4.9	1.0	.0	.7	35.1	64.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOOR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.7	1.8	1.3	37.6	58.5	615
06009	.2	.6	1.4	.6	31.7	65.6	517
12015	.5	.5	1.7	1.4	37.9	58.0	606
18021	.2	.4	.4	.6	35.5	62.9	507
TOT	6	12	31	23	816	1387	2275
PCT	.3	.5	1.4	1.0	35.9	61.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOOR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00003	.4	1.4	8.1	38.4	53.5	284
06009	.3	.7	4.7	24.6	70.7	297
12015	.7	2.1	6.4	29.5	64.1	281
18021	.0	1.1	7.8	27.6	64.6	268
TOT	4	15	76	339	715	1130
PCT	.4	1.3	6.7	30.0	63.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.1	.0	.0	.2	.0	.1	.0	5	.4
75/79	.0	.0	.4	.4	1.3	.1	.0	.0	31	2.2
70/74	.0	.0	.1	.7	2.1	4.6	5.3	1.5	201	14.4
65/69	.0	.0	.1	1.6	7.8	17.1	18.1	7.5	730	52.1
60/64	.0	.1	.1	1.4	9.6	8.6	6.8	2.9	412	29.4
55/59	.0	.0	.0	.0	.3	.4	.0	.1	14	1.4
50/54	.0	.0	.0	.0	.0	.0	.0	.1	2	.1
TOTAL	0	2	5	57	286	447	433	170	1400	100.0
PCT	.0	.1	.4	4.1	20.4	31.9	30.9	12.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80/84	.1	.1	.2	*	.0	.0	.0	.0	.0	.0
75/79	*	.2	.4	.7	.5	.4	.0	.1	.0	.0
70/74	.2	.2	2.0	4.3	3.7	2.3	1.0	.5	.0	.1
65/69	.6	1.2	6.5	13.1	14.0	10.3	5.2	1.0	.0	.4
60/64	.4	.7	2.6	6.7	8.4	6.9	3.1	.6	.0	.1
55/59	.1	.3	*	.1	.3	.4	.1	.1	.0	.0
50/54	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0
TOTAL	1.3	2.8	11.7	24.8	26.9	20.4	9.4	2.2	.0	.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOOR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	83	77	73	66	61	59	57	66.4	849
06009	86	79	75	68	62	60	52	67.9	676
12015	80	76	72	66	60	58	53	65.8	808
18021	76	73	71	65	60	58	55	64.9	624
TOT	86	77	73	66	61	59	52	66.2	2907

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOOR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	4.5	22.4	32.7	29.0	11.3	76	379
06009	.0	8.4	25.6	35.2	25.6	5.2	74	344
12015	.0	2.2	17.6	32.2	34.3	13.8	78	370
18021	.0	3.0	19.2	27.4	35.1	19.2	79	329
TOT	0	64	288	454	440	175	77	1421

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969

JANUARY

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
9/10	.0	.0	.0	.0	.0	.0	.1	.1	.1	3	.0	.2
7/8	.0	.0	.0	.1	.1	.1	.5	.2	.1	17	.0	1.0
6	.0	.0	.0	.1	.1	.2	.6	.2	.0	19	.0	1.1
5	.0	.0	.0	.1	.1	.7	.5	.0	.0	24	.2	1.2
4	.0	.0	.0	.1	.3	.6	.9	.1	.0	32	.0	1.8
3	.0	.0	.0	.1	.9	1.3	.7	.0	.0	54	.0	3.1
2	.0	.0	.0	.0	1.4	3.2	.6	.1	.0	90	.1	5.1
1	.0	.0	.0	.6	3.4	4.8	.2	.0	.0	157	.1	8.9
0	.0	.0	.1	1.4	6.2	3.6	.0	.0	.0	195	.3	10.9
-1	.0	.0	.0	2.2	8.5	2.8	.1	.0	.0	235	.3	13.2
-2	.0	.0	.3	4.4	9.2	1.6	.1	.0	.0	270	.2	15.4
-3	.0	.0	.3	5.5	6.8	.3	.0	.0	.0	224	.3	12.6
-4	.0	.0	.3	5.1	3.2	.1	.0	.0	.0	152	.1	6.7
-5	.0	.0	.7	4.5	1.8	.2	.0	.0	.0	125	.2	7.0
-6	.0	.0	.3	2.6	.9	.0	.0	.0	.0	66	.0	3.8
-7/-8	.0	.0	1.1	1.4	.5	.1	.0	.0	.0	53	.0	3.0
-9/-10	.0	.0	.1	.6	.1	.0	.0	.0	.0	13	.0	.7
-11/-13	.1	.1	.2	.1	.0	.0	.0	.0	.0	7	.1	.3
-14/-16	.0	.1	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1	3	61	499	750	339	72	11	2	1738	30	1708
PCT	.1	.2	3.5	28.7	43.2	19.5	4.1	.6	.1	100.0	1.7	98.3

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3
1-2	.0	.6	.0	.0	.0	.0	.6	.0	.6	.0	.0	.0	.0	.6
3-4	.0	.3	.4	.0	.0	.0	.7	.0	.1	.6	.0	.0	.0	.7
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.4
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.8	.6	.0	.0	.0	1.4	.0	1.1	1.1	.2	.0	.0	2.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4	.0	.6	.0	.0	.0	.0	.6
1-2	.0	1.4	.6	.0	.0	.0	1.9	.0	3.7	1.6	.0	.0	.0	5.3
3-4	.0	1.0	2.6	.0	.0	.0	3.6	.0	3.1	4.4	.2	.0	.0	7.7
5-6	.0	.4	3.5	.6	.0	.0	4.5	.0	.6	5.0	.7	.0	.0	6.3
7	.0	.0	2.2	.1	.0	.0	2.3	.0	.0	2.6	1.4	.0	.0	4.0
8-9	.0	.0	.0	.5	.0	.0	.5	.0	.0	.7	.4	.5	.0	1.5
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.7	.2	.0	.9
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.3	8.9	1.3	.0	.0	13.4	.0	8.1	14.3	3.4	.6	.0	26.4

PERIOD: (OVER-ALL) 1963-1969

JANUARY

AREA 0017 CAPE LEFUWIN  
33.95 114.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.2	1.2	.0	.0	.0	.0		1.4	.0	.0	.0	.0	.0	.0		.5	
1-2	.3	3.6	1.3	.0	.0	.0		5.2	.2	3.5	1.2	.0	.0	.0		4.8	
3-4	.3	3.4	3.0	.6	.0	.0		7.3	.0	3.5	3.1	.2	.0	.0		6.8	
5-6	.0	.3	5.2	1.1	.0	.0		6.7	.0	.8	2.8	.4	.0	.0		4.0	
7	.0	.0	2.7	.7	.0	.0		3.4	.0	.1	1.6	.5	.0	.0		2.2	
8-9	.0	.0	.4	.3	.0	.0		.7	.0	.2	.2	.5	.0	.0		.8	
10-11	.0	.0	.0	.3	.0	.0		.3	.0	.0	.0	.2	.0	.0		.2	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.2	.0	.0	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.8	8.6	12.7	3.0	.0	.0		25.0	.2	8.6	9.0	1.7	.0	.0		19.4	

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.1	.2	.0	.0	.0	.0		.3	.0	.0	.0	.0	.0	.0		.0	
1-2	.0	2.0	.5	.0	.0	.0		2.5	.0	.4	.2	.0	.0	.0		.5	
3-4	.0	1.2	1.1	.0	.0	.0		2.3	.0	.3	.4	.0	.0	.0		.7	
5-6	.0	.0	1.2	.4	.0	.0		1.7	.0	.0	.4	.2	.0	.0		.5	
7	.0	.2	.3	.9	.0	.0		1.4	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.2	.3	.0	.0		.5	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.2	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.2	.3	.0	.0	.0		.5	.0	.2	.0	.0	.0	.0		.2	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.1	3.8	3.6	1.8	.0	.0		9.4	.0	.8	1.1	.2	.0	.0		2.1	99.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.8	3.3	.0	.0	.0	.0	4.1	
1-2	.5	15.6	5.3	.0	.0	.0	21.3	
3-4	.5	13.2	15.4	1.0	.0	.0	30.1	
5-6	.0	2.2	18.5	3.3	.0	.0	24.0	
7	.0	.3	9.7	3.7	.0	.0	13.7	
8-9	.0	.2	1.4	1.9	.5	.0	4.0	
10-11	.0	.0	.0	1.6	.2	.0	1.8	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.5	.3	.0	.0	.0	.8	
20-22	.0	.0	.2	.0	.0	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.8	35.4	50.8	11.5	.6	.0	100.0	628

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	3.3	8.4	3.8	2.2	1.7	.8	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	198	4
6-7	.0	.7	4.1	8.9	7.4	2.8	1.7	.4	1.0	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	238	7
8-9	.0	.0	2.1	6.1	7.0	5.1	3.3	1.6	1.7	.2	.1	.1	.1	.0	.0	.0	.0	.0	.0	253	8
10-11	.0	.1	.2	1.6	3.3	2.4	1.5	.3	.7	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	98	8
12-13	.0	.0	.2	.4	.9	.8	1.2	.4	.3	.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	44	10
>13	.0	.0	.0	.1	.3	.2	.2	.1	.0	.1	.0	.1	.1	.0	.0	.0	.0	.0	.0	12	12
INDET	.3	.8	2.1	2.1	1.8	.2	1.2	.1	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	81	6
TOTAL	12	44	157	194	211	122	91	29	37	11	8	3	3	0	0	0	0	0	0	922	7
PCT	1.3	4.8	17.0	21.0	22.9	13.2	9.9	3.1	4.0	1.2	.9	.3	.3	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1854-1969

FEBRUARY

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	.0	.0	.0	.0	.0	.0	.0	.0	3.9	.0	.0	.0	12.7	.0	83.5	
NE	.0	.0	2.4	.0	.0	.0	.0	2.4	.0	6.0	1.2	.0	4.2	.0	86.1	
E	1.1	.6	1.3	.0	.0	.0	.0	3.0	.5	1.0	1.0	.0	2.7	.0	91.8	
SE	1.9	.7	1.2	.0	.0	.0	.0	3.8	.6	.9	1.4	.0	3.1	*	90.4	
S	1.1	2.6	.9	.0	.0	.0	.0	4.6	1.3	1.2	1.0	.0	2.6	.2	89.7	
SW	2.2	4.4	.9	.0	.0	.0	.0	7.6	1.1	.0	1.4	.0	2.1	.0	87.9	
W	1.6	9.2	1.0	.0	.0	.0	.0	11.8	2.7	.6	1.6	.0	3.8	.0	79.5	
NW	5.4	5.4	.0	.0	.0	.0	.0	10.9	.7	.0	.0	.0	1.4	.0	87.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
TOT PCT	1.6	2.4	1.1	.0	.0	.0	.0	5.1	1.0	1.0	1.2	.0	2.9	.1	89.0	
TOT OBS:	1991															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	1.1	2.9	1.4	.0	.0	.0	.0	5.4	.7	.5	1.6	.0	2.7	.0	89.2
0600	.9	2.2	.7	.0	.0	.0	.0	3.7	.9	.0	1.3	.0	3.1	.2	90.8
1200	1.8	3.0	1.4	.0	.0	.0	.0	6.3	1.1	1.1	1.4	.0	4.1	.0	86.3
1800	2.3	1.7	.9	.0	.0	.0	.0	4.9	1.5	2.3	.4	.0	1.7	.0	89.6
TOT PCT TOT OBS:	1.5 2044	2.5	1.1	.0	.0	.0	.0	5.1	1.0	1.0	1.2	.0	2.9	*	88.8

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	.7	.3	.1	.0	.0			1.2	9.7	2.1	1.4	.9	1.5	.7	1.2	.5	.9
NE	.3	1.9	1.8	.6	.0	.0			4.5	12.3	9.5	3.6	3.0	2.1	2.3	3.9	3.1	6.8
E	.4	3.8	8.8	2.8	.1	.0			15.9	15.3	18.2	15.4	17.0	10.8	13.4	16.4	15.9	19.9
SE	.2	7.1	15.8	4.2	.1	.0			27.4	14.9	25.6	24.8	32.4	25.2	26.3	25.5	35.2	23.2
S	.5	8.7	11.1	2.7	.0	.0			23.2	13.2	19.3	21.5	22.6	26.8	27.4	25.3	22.7	19.9
SW	.6	7.8	6.6	1.2	.2	.0			16.4	12.1	12.9	17.0	14.4	19.7	20.9	15.8	13.6	16.4
W	.3	4.5	2.8	.8	.1	.0			8.5	11.7	8.4	11.5	7.8	11.6	7.1	8.9	6.7	8.2
NW	.1	1.3	.7	.3	.0	.1			2.4	12.8	3.2	3.9	1.9	2.1	1.2	2.9	1.7	3.2
VAR	.0	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.6								.6	.0	.7	.9	.0	.4	.7	.0	.6	1.4
TOT OBS	93	1055	1417	372	16	2	2955		13.5		557	323	349	262	583	241	358	282
TOT PCT	3.1	39.7	48.0	12.6	.5	.1			100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	.4	.7	.1	.0	.0				1.2	9.7	1.8	1.1	.8	.7
NE	1.2	2.0	1.1	.2	.0				4.5	12.3	7.3	2.6	2.8	4.8
E	1.8	6.8	6.5	.8	.0				15.9	15.3	17.2	14.3	14.3	17.7
SE	2.3	14.1	10.2	.7	.0				27.4	14.9	25.3	29.3	26.1	29.9
S	3.5	12.5	6.6	.5	.0				23.2	13.2	20.1	24.4	26.8	21.4
SW	3.0	9.3	3.7	.4	.0				16.4	12.1	14.4	16.7	19.4	14.8
W	1.9	4.7	1.7	.2	.0				8.5	11.7	9.5	9.5	7.6	7.4
NW	.6	1.2	.4	.1	.1				2.4	12.8	3.5	2.0	1.7	2.4
VAR	.0	.0	.0	.0	.0				.0	.0	.0	.0	.0	.0
CALM	.6								.6	.0	.8	.2	.5	.9
TOT OBS	456	1512	897	85	5	2955			13.5		880	611	824	640
TOT PCT	15.4	51.2	30.4	2.9	.2				100.0		100.0	100.0	100.0	100.0



AD-A044 425

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2  
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO). AUSTRAL--ETC(U)  
SEP 77

F/G 4/2

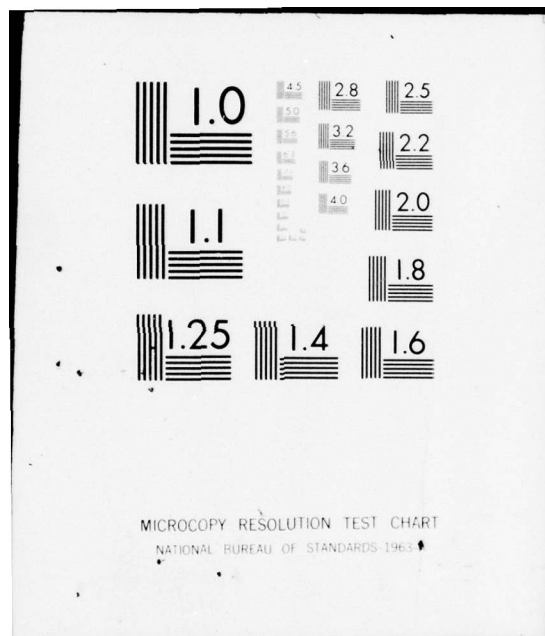
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2 OF 6

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PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969

# FEBRUARY

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+		
00003	.8	3.4	39.4	44.2	11.7	.5	.0	12.8	880
06009	.2	2.0	32.7	52.4	11.8	1.0	.0	13.8	611
12015	.5	2.2	35.2	47.2	14.2	.6	.1	14.0	824
18021	.9	2.3	34.1	49.8	17.5	.2	.2	13.6	640
TOT	18	75	1055	1417	372	16	2	13.5	2955
PCT	.6	2.5	35.7	48.0	12.6	.5	.1	100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.5	.0	.2	.3	3.8	.0
NE	2.3	.5	.6	.9	3.3	.0
E	9.3	2.8	4.6	2.4	3.3	.1
SE	12.1	4.7	8.0	5.9	3.9	.0
S	7.3	4.3	8.3	3.5	4.2	.0
SW	2.9	1.9	5.6	2.9	5.1	.0
W	1.4	.7	2.8	1.0	5.0	.0
NW	.6	.2	.7	.5	4.7	.0
VAR	.0	.0	.0	.0	4.0	.0
CALM	.1	.1	.1	.1	4.1	.0
TOT OBS	411	171	348	196	1126	
TOT PCT	36.5	15.2	30.9	17.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.2	.1	.1	.0	.0	.0	.0	.0	.5
NE	.0	.1	.0	.1	.5	.4	.1	.0	.0	.0	.0	3.2
E	.1	.2	.0	.8	1.9	1.2	.5	.1	.0	.1	.1	14.2
SE	.0	.1	.3	1.1	5.0	2.7	1.2	.4	.2	.3	.3	19.5
S	.0	.0	.1	1.3	4.0	2.5	1.6	.4	*	.0	.0	13.7
SW	.0	.0	*	.9	2.9	2.4	.5	.1	.1	.0	.0	6.3
W	.0	.1	.1	.6	1.3	.7	.4	*	.1	.0	.0	2.7
NW	.0	.0	.1	.2	.3	.2	*	*	.0	.0	.0	1.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.3
TOT OBS	411	171	348	196	1126	611	372	16	2	13.5		1126
TOT PCT	.1	.4	.5	5.2	15.9	10.1	4.3	1.2	.4	.4	61.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.7	.8	.8	.8	.8	.8	.8	.8
>5000	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9
>1500	5.6	6.1	6.2	6.2	6.2	6.2	6.2	6.2
>1000	14.9	16.1	16.3	16.3	16.3	16.3	16.3	16.3
>600	28.4	31.6	31.9	32.0	32.0	32.0	32.0	32.0
>300	32.9	36.7	37.0	37.0	37.1	37.1	37.1	37.1
>150	33.1	37.1	37.5	37.6	37.7	37.7	37.7	37.7
>0	33.1	37.5	37.8	37.9	38.1	38.1	38.1	38.1
TOTAL	378	428	433	434	436	436	436	436

TOTAL NUMBER OF OBS: 1142

PCT FREQ NH <5/8: 61.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	21.0	12.9	10.8	9.2	7.4	7.0	7.5	9.9	14.5	.0	1237

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969

FEBRUARY

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.1
1/2<1	PCP	.0	.0	.1	.1	.0	*	*	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.1	.2	*	.1	.1	.0	.0	.0	.6	.6
	TOT %	.0	.0	.2	.2	*	.1	.2	.0	.0	.0	.7	.7
1<2	PCP	.0	*	*	.1	*	*	.1	.0	.0	.0	.2	.2
	NO PCP	.1	.1	.5	.5	.5	.2	.3	*	.0	.0	2.1	2.1
	TOT %	.1	.1	.5	.6	.5	.2	.3	*	.0	.0	2.3	2.3
2<5	PCP	.0	.0	.1	.0	.0	.0	.1	.1	.0	.0	.2	.2
	NO PCP	.1	.2	.2	.1	.1	.1	.0	.0	.0	.0	.7	.7
	TOT %	.1	.2	.2	.1	.1	.1	.1	.1	.0	.0	.8	.8
5<10	PCP	.0	.1	.2	.6	1.0	1.1	.7	.2	.0	.0	3.8	3.8
	NO PCP	.4	1.5	5.2	9.0	6.2	5.9	3.2	.6	.0	.1	32.0	32.0
	TOT %	.4	1.6	5.5	9.6	7.2	7.0	3.9	.8	.0	.1	35.8	35.8
10+	PCP	.0	.0	.2	.4	.1	.1	.1	.0	.0	.0	.8	.8
	NO PCP	.5	2.3	10.9	18.0	14.8	8.5	3.4	1.0	.0	.3	59.6	59.6
	TOT %	.5	2.3	11.0	18.4	14.8	8.5	3.5	1.0	.0	.3	60.3	60.3
TOT OBS													
TOT PCT													
		1.0	4.1	17.4	28.9	22.6	15.9	7.9	1.8	.0	.3	100.0	1989

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.0	*
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.1	*	.1	.1	.0	.0	.0	.2	.2
	11-21	.0	.0	.1	.2	.0	*	*	.0	.0	.0	.4	.4
	22+	.0	.0	*	.0	.0	*	*	.0	.0	.0	.1	.1
	TOT %	.0	.0	.1	.3	*	.1	.1	.0	.0	.0	.7	.7
1<2	0-3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	*	*	*	.2	.3	.1	.1	.0	.0	.0	.8	.8
	11-21	.0	*	.2	.2	.1	.1	.1	*	.0	.0	.8	.8
	22+	.0	*	.2	.1	.1	.0	*	.0	.0	.0	.5	.5
	TOT %	.1	.1	.4	.5	.5	.2	.3	*	.0	.0	2.1	2.1
2<5	0-3	.0	.1	.0	.0	*	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.1	.0	.0	.0	.1	.0	*	.0	.0	.3	.3
	11-21	.0	.0	.1	.1	.1	.0	*	.0	.0	.0	.3	.3
	22+	*	.0	.1	.1	.0	.0	.0	*	.0	.0	.2	.2
	TOT %	*	.2	.2	.1	.1	.1	*	.1	.0	.0	1.0	1.0
5<10	0-3	.1	.1	.2	*	.3	.2	.2	.0	.0	*	1.0	1.0
	4-10	.2	.5	1.1	2.2	2.9	2.3	1.3	.2	.0	.0	10.6	10.6
	11-21	.1	.7	2.9	5.3	3.0	3.2	1.4	.3	.0	.0	16.9	16.9
	22+	.0	.3	1.0	1.4	.6	.7	.7	.3	.0	.0	4.9	4.9
	TOT %	.4	1.6	5.2	9.0	6.7	6.4	3.5	.8	.0	*	33.5	33.5
10+	0-3	*	.1	.1	.1	.1	.3	.1	.1	.0	.3	1.2	1.2
	4-10	.4	1.0	2.1	4.8	5.7	5.2	2.5	.7	.0	.0	22.5	22.5
	11-21	.1	1.0	6.4	11.1	7.9	3.3	1.4	.4	.0	.0	31.5	31.5
	22+	.0	.3	2.1	2.9	1.5	.3	.2	.0	.0	.0	7.6	7.6
	TOT %	.6	2.4	10.7	18.8	15.6	9.0	4.2	1.1	.0	.3	62.7	62.7
TOT OBS													
TOT PCT													
		1.1	4.3	16.7	28.7	22.9	15.8	8.1	2.0	.0	.3	100.0	2199

## FEBRUARY

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.7	.3	4.9	17.0	10.6	4.9	2.0	.0	.3	41.0	59.0	305
06009	.3	.3	.3	3.1	11.5	8.1	4.1	.7	1.0	.3	29.8	70.2	295
12015	.0	.7	.7	4.7	15.1	9.4	4.0	1.0	.0	.0	35.6	64.4	298
18021	.0	.0	.7	7.1	16.6	10.1	3.4	.7	.7	.7	39.9	60.1	296
TOT	1	5	6	59	180	115	49	13	5	4	437	757	1194
PCT	.1	.4	.5	4.9	15.1	9.6	4.1	1.1	.4	.3	36.6	63.4	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.8	2.6	1.3	37.7	57.6	621
06009	.0	.8	1.8	.8	29.6	66.9	487
12015	.0	.6	2.9	.8	36.6	59.1	628
18021	.2	.4	1.0	.8	29.8	67.9	517
TOT	1	15	49	21	762	1406	2253
PCT	.1	.7	2.1	.9	33.8	62.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	1.0	6.6	36.9	56.6	290
06009	.4	1.4	4.7	27.0	68.3	278
12015	.0	1.4	7.3	29.5	63.1	287
18021	.0	.7	8.7	37.8	56.5	287
TOT	1	13	78	361	703	1142
PCT	.1	1.1	6.8	31.6	61.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.1	.0	.1	.2	.0	.0	6	.4
75/79	.0	.0	.0	.3	.9	1.6	.5	.1	47	3.4
70/74	.0	.0	.2	.8	3.4	6.0	7.6	2.4	280	20.5
65/69	.0	.0	.1	1.5	8.4	17.8	19.2	7.8	752	55.0
60/64	.0	.0	.0	1.0	7.1	7.7	3.1	1.3	276	20.2
55/59	.0	.0	.0	.1	.2	.0	.1	.0	6	.4
TOTAL	0	0	6	51	278	455	418	159	1367	100.0
PCT	.0	.0	.4	3.7	20.3	33.3	30.6	11.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.1	.1	.0	.1	.1	.0	.0	.0
.1	.0	1.2	.9	.9	.2	.1	.1	.0	.0
.4	1.4	3.7	6.9	4.3	2.1	.8	.7	.0	.1
.4	2.1	9.9	15.6	12.4	8.2	5.0	1.2	.0	.2
.3	.7	2.6	5.6	4.7	4.2	1.7	.3	.0	.1
.0	.0	.0	.2	.1	.1	.1	.0	.0	.0
1.2	4.3	17.5	29.2	22.4	14.9	7.7	2.3	.0	.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	80	77	73	67	62	59	56	67.1	875
06009	86	80	76	68	63	60	56	68.8	607
12015	81	77	73	67	61	59	57	66.9	876
18021	76	73	71	65	61	59	58	65.7	646
TOT	86	77	74	67	61	59	56	67.1	2954

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	5.0	19.7	36.7	27.8	10.8	76	360		
06009	.0	6.5	28.1	33.3	25.9	6.2	74	324		
12015	.0	3.0	16.3	30.7	35.9	14.1	78	368		
18021	.0	2.1	17.7	32.6	32.3	15.3	78	334		
TOT	0	57	281	462	424	162	77	1386		



FEBRUARY

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1855-1969AREA 0017 CAPE LEEUWIN  
33.95 114.06

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	62 68	69 72	73 76	77 80	81 84	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
9/10	.0	.0	.0	.0	.0	.1	.1	.2	7	.0	.4
7/8	.0	.0	.0	.0	.1	.4	.3	.0	15	.0	.8
6	.0	.0	.0	.1	.1	.3	.2	.0	12	.1	.6
5	.0	.0	.0	.1	.3	1.0	.1	.0	26	.0	1.4
4	.0	.0	.0	.5	.9	.9	.1	.0	43	.0	2.4
3	.0	.0	.1	.7	2.2	1.1	.0	.0	73	.1	4.0
2	.0	.0	.3	1.9	2.7	.7	.2	.0	104	.1	5.7
1	.0	.0	.5	2.4	3.2	.8	.1	.0	126	.2	6.9
0	.0	.0	.7	5.9	5.5	.3	.0	.0	222	.3	12.1
-1	.0	.1	1.3	8.0	3.3	.2	.0	.0	231	.3	12.6
-2	.0	.1	2.8	9.2	2.6	.1	.0	.0	265	.1	14.7
-3	.0	.1	4.0	7.6	1.3	.0	.0	.0	233	.2	12.8
-4	.0	.4	3.6	4.6	.4	.0	.0	.0	162	.1	9.0
-5	.0	.2	3.9	2.5	.2	.0	.0	.0	123	.1	6.8
-6	.1	.3	1.8	1.3	.0	.1	.0	.0	64	.0	3.6
-7/-8	.1	.7	2.3	.6	.1	.0	.0	.0	66	.0	3.7
-9/-10	.0	.4	.3	.1	.0	.0	.0	.0	14	.0	.8
-11/-13	.0	.3	.1	.1	.0	.0	.0	.0	7	.0	.4
-14/-16	.0	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	2	46	391	815	412	108	18	3	1795	24	1771
PCT	.1	2.6	21.8	45.4	23.0	6.0	1.0	.2	100.0	1.3	98.7

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1	.1	.5	.0	.0	.0	.0	.6
1-2	.0	.5	.0	.0	.0	.0	.5	.0	.6	.1	.0	.0	.0	.7
3-4	.0	.3	.1	.0	.0	.0	.4	.0	.9	.8	.0	.0	.0	1.7
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.0	.5	.1	.0	.0	.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0	.0	.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.9	.4	.0	.0	.0	1.3	.1	1.9	1.8	.4	.0	.0	4.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.1	.0	.0	.0	.0	.5	.2	.9	.0	.0	.0	.0	1.1
1-2	.0	.8	1.0	.0	.0	.0	1.8	.0	3.1	2.1	.0	.0	.0	5.3
3-4	.0	1.0	4.0	.7	.0	.0	5.6	.0	2.1	4.8	.4	.0	.0	7.2
5-6	.0	.1	3.8	.4	.0	.0	4.3	.0	.3	7.5	.9	.0	.0	8.7
7	.0	.1	2.1	1.1	.0	.0	3.4	.0	.3	2.3	2.5	.0	.0	5.2
8-9	.0	.0	.4	1.1	.0	.0	1.5	.0	.0	1.2	.8	.0	.0	2.0
10-11	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.6	.0	.0	.6
12	.0	.0	.1	.4	.0	.0	.5	.0	.0	.0	.2	.0	.0	.3
13-16	.0	.0	.1	.3	.0	.0	.5	.0	.1	.4	.2	.0	.0	.8
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	2.2	11.6	4.4	.0	.0	18.5	.2	6.9	18.4	5.6	.0	.0	31.1

PERIOD: (OVER-ALL) 1963-1969

FEBRUARY  
TABLE 18 (CONT)

AREA 0017 CAPE LEEUWIN  
93.95 114.6F

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.7	.1	.0	.0	.0	1.1	.2	.4	.*	.0	.0	.0	.7
1-2	.0	3.0	1.0	.0	.0	.0	4.0	.0	3.2	.3	.0	.0	.0	3.6
3-4	.0	2.1	5.2	.3	.0	.0	7.6	.0	1.8	1.7	.0	.0	.0	3.6
5-6	.0	.0	4.1	1.6	.0	.0	5.8	.0	.3	1.8	.2	.0	.0	2.3
7	.0	.3	1.5	1.3	.0	.0	3.0	.0	.1	.9	.1	.0	.0	1.2
8-9	.0	.0	.8	.9	.0	.0	1.6	.0	.6	.6	.*	.0	.0	1.3
10-11	.0	.0	.1	.1	.0	.0	.3	.0	.1	.0	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.*	.0	.*
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	6.2	12.8	4.5	.0	.0	23.7	.2	6.7	5.5	.4	.*	.0	12.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.3	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.3	
1-2	.1	1.3	.6	.0	.0	.0	2.0	.3	.3	.3	.0	.0	.0	.9	
3-4	.0	.9	.7	.0	.0	.0	1.5	.0	.2	.5	.0	.0	.0	.7	
5-6	.0	.3	.6	.0	.0	.0	.9	.0	.1	.1	.0	.0	.0	.2	
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	.1	.0	.0	.3	
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.1	.0	.0	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	2.7	2.0	.3	.1	.0	5.2	.3	1.1	1.0	.1	.0	.0	2.5	99.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.8	3.4	.1	.0	.0	.0	5.3	
1-2	.6	13.2	5.4	.0	.0	.0	19.3	
3-4	.0	9.1	17.6	1.3	.0	.0	28.1	
5-6	.0	1.2	18.5	3.2	.0	.0	22.9	
7	.0	.9	7.4	5.3	.0	.0	13.5	
8-9	.0	.6	3.1	2.9	.0	.0	6.6	
10-11	.0	.3	.1	1.3	.0	.0	1.8	
12	.0	.0	.1	.6	.0	.0	.7	
13-16	.0	.1	.6	.9	.1	.0	1.8	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.4	28.8	53.1	15.6	.1	.0	100.0	680

PERIOD: (OVER-ALL) 1920-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.7	4.9	8.2	4.0	2.7	.9	1.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	221	4
6-7	.0	.8	2.6	7.6	5.0	4.1	2.5	.4	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	231	7
8-9	.0	.1	.2	4.7	8.2	5.1	3.2	1.7	1.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	243	8
10-11	.0	.2	.5	1.3	2.0	2.3	1.0	.5	1.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	94	8
12-13	.0	.0	.4	.2	1.1	1.6	1.3	.4	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	64	9
>13	.0	.0	.0	.0	.0	.3	.4	.3	1.0	.4	.2	.0	.2	.0	.0	.0	.0	.0	.0	28	14
INDET	.2	1.1	1.9	1.6	2.9	.8	.4	.3	.5	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	98	6
TOTAL	9	70	135	190	214	149	96	38	65	8	3	0	2	0	0	0	0	0	0	979	7
PCT	.9	7.2	13.8	19.4	21.9	15.2	9.8	3.9	6.6	.8	.3	.0	.2	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1855-1971

MARCH

AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	2.9	2.3	2.3	.0	.0	.0	.0	7.4	1.7	.0	3.4	.0	11.4	.0	76.0
NE	3.8	1.4	.0	.0	.0	.0	.0	5.3	1.9	2.2	6.7	.0	3.8	.0	81.0
E	1.8	1.4	1.3	.0	.0	.0	.0	4.5	.2	1.7	3.2	.2	2.0	.0	88.5
SE	.4	.4	1.4	.0	.0	.0	.0	2.3	.4	.8	5.0	*	1.5	.0	89.9
S	2.4	1.8	1.0	.0	.0	.0	.0	5.2	1.2	.4	2.0	.0	1.4	.0	89.8
SW	2.6	2.6	.1	.0	.0	.0	.0	5.4	1.8	.8	1.2	.0	.8	.0	90.4
W	4.1	6.7	2.2	.0	.0	.0	.0	12.9	.7	.9	1.2	.0	.3	.0	84.5
NW	1.8	5.7	.5	.0	.0	.0	.0	8.1	5.5	.5	3.1	.0	.0	.0	83.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	7.1	.0	.0	.0	.0	.0	.0	7.1	.0	.0	.0	.0	.0	.0	92.9
TOT PCT	2.2	2.3	1.1	.0	.0	.0	.0	5.5	1.1	.9	2.9	*	1.5	.0	88.2
TOT OBS:	2400														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	2.6	1.9	1.5	.0	.0	.0	.0	6.0	1.2	.6	3.6	.1	2.0	.0	86.8
06009	2.0	2.3	.4	.0	.0	.0	.0	4.6	1.4	.2	3.4	.0	1.2	.0	89.4
12015	2.5	2.6	1.7	.0	.0	.0	.0	6.8	.8	1.2	2.8	.0	1.7	.0	86.7
18021	1.3	2.5	.5	.0	.0	.0	.0	4.3	1.1	1.4	2.2	.0	.9	.0	90.4
TOT PCT	2.1	2.3	1.1	.0	.0	.0	.0	5.5	1.1	.9	3.0	*	1.5	.0	88.2
TOT OBS:	2452														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	.8	.6	.2	.0	.0		1.7	12.3		3.2	3.3	1.2	1.1	.6	.8	1.4	1.6
NE	.2	1.8	2.2	.3	.0	.0		4.4	12.2		8.5	4.8	3.0	2.3	2.0	4.7	3.4	5.7
E	.8	4.6	7.2	2.0	.1	.0		14.7	13.9		16.3	17.0	13.0	11.7	12.1	15.8	14.4	19.0
SE	.6	8.7	12.1	2.8	.2	.0		24.5	13.7		22.1	21.9	24.3	25.1	24.6	28.2	29.5	21.7
S	.8	7.9	10.0	2.7	.2	.0		21.5	13.4		18.9	19.3	19.6	23.7	25.6	21.2	21.6	20.7
SW	.5	7.4	7.8	2.0	.1	.0		17.8	13.0		16.5	15.8	20.3	19.8	19.4	16.9	16.2	16.4
W	.3	4.1	4.2	1.7	.2	.0		10.6	14.0		9.6	11.2	14.7	10.7	11.0	8.5	6.7	9.4
NW	.2	1.5	1.6	.7	*	.0		4.0	13.4		4.2	5.4	3.8	4.0	3.7	3.6	3.3	4.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.9							.9	.1		.6	1.3	.2	.6	1.1	.4	1.4	1.2
TOT OBS	160	1323	1650	447	30	0	3610		13.3		695	389	450	328	724	266	423	335
TOT PCT	4.4	36.6	45.7	12.4	.8	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	.3	1.0	.4	*	.0			1.7	12.3	3.3	1.2	.7	1.5
NE	.8	2.3	1.2	*	.0			4.4	12.2	7.2	2.7	2.8	4.4
E	2.4	6.7	5.0	.6	.0			14.7	13.9	16.6	12.5	13.1	16.4
SE	3.2	13.1	7.3	.9	*			24.5	13.7	22.0	25.0	25.5	26.1
S	3.3	11.3	6.0	.8	*			21.5	13.4	19.1	21.3	24.4	21.2
SW	2.8	9.8	4.5	.6	*			17.8	13.0	16.2	20.1	18.7	16.3
W	1.7	5.4	2.7	.7	.0			10.6	14.0	10.2	13.0	10.3	9.0
NW	.9	1.9	1.1	.2	.0			4.0	13.4	4.7	3.9	3.7	3.8
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0
CALM	.9							.9	.1	.8	.4	.9	1.3
TOT OBS	589	1858	1021	140	2	3610		13.3		1084	778	990	758
TOT PCT	16.3	51.5	28.3	3.9	.1			100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1855-1971

MARCH

AREA 0017 CAPE LEEUWIN  
33.9S 114.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						PCT FREQ	TOTAL OBS	
		1-3	4-10	11-21	22-33	34-47	48+			
00003	.8	3.7	38.7	43.7	12.2	.8	.0	13.1	100.0	1084
06009	.4	3.5	34.6	46.5	14.4	.6	.0	13.7	100.0	778
12015	.9	3.7	34.8	46.6	12.7	1.2	.0	13.7	100.0	990
18021	1.3	3.3	38.1	46.6	10.2	.5	.0	12.9	100.0	758
TOT	31	129	1323	1650	447	30	0	13.3		3610
PCT	.9	3.6	36.6	45.7	12.4	.8	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCH	TOTAL OBS	MEAN CLOUD COVER
N	.5	.1	.7	.3		4.8
NE	2.1	.4	.9	.7		3.5
E	8.0	1.5	2.8	2.2		3.1
SE	10.2	3.3	5.9	3.8		3.7
S	5.0	3.0	8.3	4.9		5.0
SW	2.3	3.9	8.6	4.0		5.4
W	2.3	1.7	5.5	2.4		5.2
NW	.9	.7	1.6	.7		4.9
VAR	.0	.0	.0	.0		.0
CALM	.4	.1	.1	.0		2.5
TOT OBS	428	199	468	257	1352	4.4
TOT PCT	31.7	14.7	34.6	19.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.1	.2	.1	.1	.0	.0	.2	.7	
NE	.0	.1	.0	.1	.5	.5	.0	.0	.0	.1	2.9	
E	.0	.0	.1	.3	1.2	.6	.6	.3	.0	.1	11.3	
SE	.0	.0	.2	.9	2.1	2.6	1.0	.5	.1	.1	15.6	
S	.1	.0	.1	1.1	5.2	2.7	1.3	.5	.1	.2	10.2	
SW	.0	.0	.3	1.5	4.9	2.6	1.1	.2	.1	.2	7.9	
W	.1	.0	.0	.9	2.7	1.5	.8	.3	.0	.1	5.6	
NW	.0	.0	.1	.2	.7	.7	.2	.0	.0	.0	2.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.5	
TOT OBS	2	1	11	69	236	154	70	24	3	13	769	1352
TOT PCT	.1	.1	.8	5.1	17.3	11.4	5.2	1.8	.2	1.0	56.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.0	1.2	1.2	1.2	1.2	1.2	1.2	1.2
>4000	2.7	2.9	2.9	2.9	2.9	2.9	2.9	2.9
>3500	7.1	8.1	8.3	8.3	8.3	8.3	8.4	8.4
>2000	17.2	19.4	19.6	19.6	19.6	19.6	19.7	19.7
>1000	33.0	36.4	36.9	36.9	36.9	36.9	37.0	37.0
>600	36.6	41.4	42.0	42.0	42.0	42.0	42.1	42.1
>300	37.1	42.1	42.8	42.8	42.8	42.8	42.9	42.9
>150	37.1	42.1	42.8	42.8	42.9	42.9	43.0	43.0
>0	37.2	42.2	42.9	43.0	43.1	43.1	43.1	43.1
TOTAL	511	580	590	591	592	592	593	593

TOTAL NUMBER OF OBS: 1375

PCT FREQ NH <5/8: 56.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCH	TOTAL OBS
	17.9	19.4	10.2	8.0	8.0	7.0	9.9	11.6	13.9	.1	1506

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1855-1971

MARCH

AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	*	*	.0	*	*	.0	.0	.0	.1	
	TOT %	.0	.0	*	*	.0	*	*	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	*	.0	*	.0	*	*	.0	.0	.1	
	NO PCP	.1	.3	.4	.6	.3	.2	.1	.1	.0	.0	2.1	
	TOT %	.1	.3	.5	.6	.3	.2	.1	.1	.0	.0	2.2	
1<2	PCP	.0	*	.0	.0	*	*	.0	.0	.0	.0	.1	
	NO PCP	.1	.0	.1	.1	.2	.1	.1	.0	.0	.0	.8	
	TOT %	.1	*	.1	.1	.2	.2	.1	.0	.0	.0	.9	
2<5	PCP	*	.0	.0	.1	.1	.1	.2	*	.0	.0	.5	
	NO PCP	.0	*	.0	*	.2	.2	.1	.1	.0	.0	.6	
	TOT %	*	*	.0	.1	.3	.3	.2	.1	.0	.0	1.1	
5<10	PCP	*	.2	.4	.3	.7	.6	.9	.2	.0	*	3.4	
	NO PCP	.7	1.3	4.1	7.4	5.7	3.9	3.6	1.3	.0	.1	28.1	
	TOT %	.7	1.5	4.5	7.7	6.4	4.6	4.5	1.5	.0	.1	31.5	
10+	PCP	.1	.0	.2	.1	.3	.2	.4	.1	.0	.0	1.3	
	NO PCP	.8	2.5	9.1	14.8	13.9	12.4	6.6	2.2	.0	.5	62.8	
	TOT %	.9	2.5	9.3	14.9	14.2	12.6	7.0	2.2	.0	.5	64.1	
TOT OBS													
TOT PCT													
		1.8	4.3	14.5	23.6	21.3	17.9	12.0	4.0	.0	.6	100.0	2393

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	.0	*	*	.0	.0	.0	.1	
	11-21	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	*	*	.0	*	*	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	*	*	*	*	*	*	.0	.0	.1	
	4-10	*	.1	.2	.3	.1	.1	.1	.0	.0	.0	.9	
	11-21	*	.1	.2	.2	.1	*	*	.1	.0	.0	.7	
	22+	.0	*	*	.1	.1	.0	*	*	.0	.0	.2	
	TOT %	.1	.2	.4	.6	.3	.2	.1	.1	.0	.0	2.0	
1<2	0-3	.0	.0	*	.0	.0	*	*	.0	.0	.0	.1	
	4-10	*	.0	.1	.1	.2	*	*	.0	.0	.0	.4	
	11-21	*	*	.1	.1	.1	*	*	.0	.0	.0	.3	
	22+	*	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.1	*	.1	.2	.2	.2	.1	.0	.0	.0	.9	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	*	.1	*	.1	.2	.1	*	*	.0	.0	.5	
	11-21	.1	.1	.0	.2	.1	.2	.1	.1	.0	.0	.8	
	22+	.0	.0	.0	.0	*	*	.1	*	.0	.0	.2	
	TOT %	.1	.1	*	.3	.4	.3	.2	.1	.0	.0	1.6	
5<10	0-3	*	.1	.2	.1	.1	.1	.1	.1	.0	.1	1.0	
	4-10	.4	.5	1.2	2.6	1.8	1.3	1.9	.6	.0	.0	10.2	
	11-21	.1	.6	2.2	3.9	3.1	2.0	1.5	.4	.0	.0	13.8	
	22+	.1	.2	.7	.6	.9	.8	.7	.3	.0	.0	4.4	
	TOT %	.6	1.4	4.3	7.2	5.8	4.3	4.2	1.4	.0	.1	29.3	
10+	0-3	.1	.1	.5	.5	.5	.3	.3	.1	.0	.4	2.7	
	4-10	.4	1.3	3.0	5.7	5.7	5.1	2.4	1.0	.0	.0	24.5	
	11-21	.3	1.2	4.9	8.1	7.0	5.8	2.8	.9	.0	.0	31.1	
	22+	.1	*	1.1	1.8	1.7	1.5	1.1	.4	.0	.0	7.7	
	TOT %	.9	2.6	9.5	16.2	14.9	12.6	6.6	2.3	.0	.4	66.1	
TOT OBS													
TOT PCT													
		1.8	4.4	14.4	24.4	21.7	17.5	11.2	4.0	.0	.6	100.0	2693



## MARCH

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1855-1971

AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.0	.3	.8	6.6	18.9	12.5	4.5	2.7	.3	.5	47.1	52.9	376
06009	.3	.0	.8	5.3	14.8	9.8	4.5	1.3	.3	1.1	38.0	62.0	379
12015	.0	.0	1.4	2.9	16.6	10.0	4.9	1.1	.3	.9	38.0	62.0	350
18021	.3	.0	.0	4.2	15.4	10.4	6.7	1.4	.0	1.1	39.6	60.4	356
TOT	2	1	11	70	240	156	75	24	3	13	595	866	1461
PCT	.1	.1	.8	4.8	16.4	10.7	5.1	1.6	.2	.9	40.7	59.3	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	2.6	1.0	1.8	31.3	63.2	771
06009	.0	2.6	.5	1.1	26.5	69.3	618
12015	.1	2.1	1.6	2.3	31.5	62.3	746
18021	.3	1.0	.5	.7	27.7	69.8	610
TOT	4	58	26	42	809	1806	2745
PCT	.1	2.1	.9	1.5	29.5	65.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR  
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOURL (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ ANUS+	NH < 5/8 AND 5+	TOTAL OBS
00003	.0	1.4	9.7	40.3	50.0	352
06009	.3	1.1	7.3	33.6	59.1	357
12015	.0	1.5	6.1	35.3	58.6	326
18021	.3	.9	5.3	36.5	58.2	340
TOT	2	17	98	501	776	1375
PCT	.1	1.2	7.1	36.4	56.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
80/84	.0	.0	.0	.0	.1	.1	.0	.0	2	.1
75/79	.0	.0	.1	.2	.6	.8	.3	.2	38	2.2
70/74	.0	.0	.0	.8	2.8	4.3	5.9	3.5	296	17.3
65/69	.0	.0	.2	2.0	7.8	14.8	16.9	8.6	846	50.2
60/64	.0	.0	.1	2.2	7.8	9.3	6.2	2.4	485	28.1
55/59	.0	.0	.0	.2	.4	.6	.5	.3	36	2.1
TOTAL	0	0	6	95	338	516	512	259	1726	100.0
PCT	.0	.0	.3	5.5	19.6	29.9	29.7	15.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.0	.0	*	*	.0	.0
80/84	.0	.0	.0	*	*	.0	.1	.0	.0	.0
75/79	.1	.1	.5	.6	.4	.1	.2	.1	.0	.1
70/74	.5	1.5	2.6	4.7	2.8	1.8	2.1	1.1	.0	.1
65/69	.6	2.0	8.1	13.1	9.9	8.4	6.1	1.7	.0	.2
60/64	.3	.5	3.3	5.5	7.9	7.1	2.6	.8	.0	.1
55/59	.2	.2	.1	.1	.4	.5	.4	.2	.0	.0
TOTAL	1.7	4.4	14.7	24.0	21.4	18.0	11.5	3.8	.0	.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	95%	90%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	81	76	73	66	61	59	55	66.6	1064
06009	86	79	75	68	62	59	55	68.0	765
12015	85	77	73	66	61	59	55	66.5	983
18021	83	74	72	65	60	57	55	65.5	763
TOT	86	77	73	66	61	59	55	66.6	3575

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	5.3	17.8	31.0	28.6	17.3	78	490
06009	.0	9.5	27.9	28.6	24.2	9.8	74	409
12015	.0	5.8	15.5	28.8	33.5	16.4	78	451
18021	.0	2.9	18.6	30.3	32.5	15.6	78	409
TOT	0	103	347	523	523	263	77	1759

## MARCH

PERIOD: (PRIMARY) 1912-1971  
(OVER-ALL) 1855-1971

AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53	57	61	65	69	73	77	81	TOT	W FOG	WD FOG
56	60	64	68	72	76	80	84				
11/13	.0	.0	.0	.0	.0	.0	*	.0	1	.0	*
9/10	.0	.0	.0	.0	.0	.1	.3	.0	9	.0	.4
7/8	.0	.0	.0	.0	.1	.3	.3	*	16	.1	.7
6	.0	.0	.0	*	.1	.3	.1	.0	12	*	.5
5	.0	.0	.0	.1	.2	.6	.1	.0	21	.1	.8
4	.0	.0	.0	.2	.4	.8	*	.0	32	.1	1.4
3	.0	.0	*	.3	1.4	.8	*	.0	54	.2	2.4
2	.0	.1	.1	1.4	2.6	1.1	.1	.0	116	.5	5.0
1	.0	.0	.1	2.5	4.4	1.1	.0	.0	174	.5	7.7
0	.0	.0	.7	5.2	4.4	.3	.0	.0	225	.6	10.0
-1	.0	.0	1.3	7.3	3.3	.2	.0	.0	258	.5	11.7
-2	.0	.2	2.6	7.8	2.5	.1	.0	.0	282	.3	13.0
-3	.0	.3	2.7	7.4	1.6	.0	.0	.0	257	.1	12.0
-4	.0	.5	4.8	4.9	.8	.0	.0	.0	233	.3	10.7
-5	.1	.5	3.3	2.9	.2	.0	.0	.0	149	.1	6.9
-6	.0	.6	4.0	1.1	.1	.0	.0	.0	123	.0	5.8
-7/-8	*	1.1	3.8	.7	*	.0	.0	.0	121	.0	5.7
-9/-10	.1	.2	.6	.1	.0	.0	.0	.0	22	.0	1.0
-11/-13	.0	.4	.1	.1	.0	.0	.0	.0	15	.0	.7
-14/-16	.0	.1	.0	.0	.0	.0	.0	.0	3	.0	.1
TOTAL	6	86	518	895	473	120	24	1	2123	72	2051
PCT	.3	4.1	24.4	42.2	22.3	5.7	1.1	*	100.0	3.4	96.6

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.5
1-2	.0	.5	.1	.0	.0	.0	.6	.0	1.1	.4	.0	.0	.0	1.6
3-4	.0	.4	.0	.0	.0	.0	.4	.0	.3	.6	.0	.0	.0	.9
5-6	.0	.0	.4	.2	.0	.0	.6	.0	.3	.7	.0	.0	.0	1.0
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.9	.6	.4	.0	.0	1.8	.1	2.0	2.2	.0	.0	.0	4.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0	.3	.5	*	.0	.0	.0	.8
1-2	.0	1.7	.7	.0	.0	.0	2.4	.1	2.2	.8	.0	.0	.0	3.2
3-4	.0	1.5	2.5	.0	.0	.0	4.0	.0	3.4	4.2	.5	.0	.0	8.1
5-6	.0	.2	3.2	.9	.0	.0	4.3	.0	.5	4.3	.4	.0	.0	5.2
7	.0	.1	1.0	.1	.0	.0	1.3	.0	.0	1.8	.6	.0	.0	2.4
8-9	.0	.0	.5	.1	.0	.0	.6	.0	.0	.3	.5	.0	.0	.8
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.3	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.5	8.0	1.4	.0	.0	13.9	.4	6.5	11.8	2.5	.0	.0	21.2

PERIOD: (OVER-ALL) 1963-1971

MARCH

AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.5	.1	.0	.0	.0	1.0	.3	.4	.0	.0	.0	.0	.7
1-2	.3	3.0	1.2	.0	.0	.0	4.5	*	3.1	1.3	.0	.0	.0	4.4
3-4	.0	2.1	5.3	.6	.0	.0	7.9	.0	3.6	2.8	.2	.0	.0	6.6
5-6	.0	.6	3.4	.8	.0	.0	4.7	.0	1.2	4.5	.4	.0	.0	6.1
7	.0	.0	.9	1.3	.0	.0	2.2	.0	.1	1.4	.8	.0	.0	2.3
8-9	.0	.0	.5	.4	.1	.0	1.0	.0	.0	.2	.7	.0	.0	.9
10-11	.0	.0	.1	.2	.0	.0	.4	.0	.0	.0	*	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.6
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	6.1	11.5	3.3	.1	.0	21.7	.3	6.4	10.3	2.7	.1	.0	21.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.4	.0	.0	.0	.0	.6	.0	*	.0	.0	.0	.0	*	
1-2	.3	1.5	.8	.0	.0	.0	2.6	*	.2	.3	.0	.0	.0	.6	
3-4	.0	.9	1.3	.5	.0	.0	2.7	.0	.4	.2	*	.0	.0	.7	
5-6	.0	.3	2.2	.4	.1	.0	3.1	.0	.1	.7	.1	.0	.0	.9	
7	.0	.1	.5	.9	.0	.0	1.5	.0	.0	.1	.1	.0	.0	.3	
8-9	.0	.0	.1	.1	.0	.0	.2	.0	.0	.0	*	.1	.0	.2	
10-11	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.3	.0	.0	.3	
12	.0	.0	.0	.1	.2	.0	.3	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.1	.2	.1	.0	.5	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	3.2	5.0	2.2	.6	.0	11.6	*	.8	1.4	.6	.1	.0	3.0	99.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.3	3.2	.1	.0	.0	.0	5.6	
1-2	.8	13.1	5.7	.0	.0	.0	19.7	
3-4	.0	12.5	17.0	1.7	.0	.0	31.2	
5-6	.0	3.2	19.4	3.2	.1	.0	25.9	
7	.0	.4	6.1	3.9	.0	.0	10.4	
8-9	.0	.0	1.7	1.9	.3	.0	3.9	
10-11	.0	.0	.4	.8	.1	.0	1.3	
12	.0	.0	.0	.7	.3	.0	.9	
13-16	.0	.0	.1	.7	.1	.0	.9	
17-19	.0	.0	.0	.3	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.1	32.4	50.6	13.0	.9	.0	100.0	753

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.8	3.8	8.3	4.2	2.6	1.2	.7	.0	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	253
6-7	.0	.8	3.2	6.8	5.9	3.6	1.3	.6	.7	.1	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	264
8-9	.0	.2	1.1	3.3	5.4	4.7	3.1	1.3	1.3	.3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	235
10-11	.0	.2	.3	1.2	3.2	2.6	2.2	1.7	1.3	.4	.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	153
12-13	.0	.0	.2	.3	.6	1.2	1.2	1.0	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	64
>13	.0	.0	.0	.3	.6	.6	1.1	.6	.4	.2	.3	.1	.4	.0	.0	.0	.0	.0	.0	.0	52
INDET	.8	1.4	2.1	1.2	1.2	1.5	.7	.6	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	115
TOTAL	18	72	171	196	221	177	118	86	67	13	8	2	8	0	0	0	0	0	0	0	1137
PCT	1.6	6.3	15.0	17.2	19.4	15.6	10.4	5.8	5.9	1.1	.7	.2	.7	.0	.0	.0	.0	.0	.0	.0	100.0

APRIL

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1957-1969AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA	
N	2.1	1.5	.0	.0	.0	.0	.0	3.6	3.2	.0	3.4	.0	.8	.0	89.0	
NE	5.1	1.1	3.0	.0	.0	.0	.0	9.1	1.7	.8	1.1	.0	.3	.0	87.0	
E	2.4	1.9	2.1	.0	.0	.0	.0	6.5	.8	1.4	1.0	.0	.5	.0	89.9	
SE	.8	1.8	.8	.0	.0	.0	.0	3.4	1.5	1.2	1.7	.0	.4	.0	91.7	
S	2.2	4.0	1.1	.0	.0	.0	.3	7.5	1.7	.0	.5	.0	.1	.0	90.1	
SW	2.2	8.9	2.3	.0	.0	.0	.0	13.5	3.7	.7	.5	.2	.0	.0	81.5	
W	3.8	11.6	1.8	.0	.0	.0	.0	17.2	3.0	.6	.7	.0	.7	.0	77.9	
NW	5.6	7.2	1.0	.0	.0	.0	.0	13.6	1.4	.6	.8	.0	1.4	.0	82.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	5.3	5.3	.0	.0	.0	5.3	.0	
TOT PCT	2.7	5.3	1.6	.0	.0	.0	*	9.7	2.2	.7	1.0	*	.5	.0	85.9	
TOT OBS:	2310															

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603		5.5	1.3	.0	.0	.0		9.7	1.9	.0	1.2	.0	.6	.0		86.7
06009	2.1	5.4	1.7	.0	.0	.0	.0	9.2	1.9	.0	1.3	.2	.6	.0		86.7
12015	3.1	5.8	1.9	.0	.0	.0	.2	10.9	2.2	1.1	1.1	.0	.2	.0		84.8
18021	3.0	4.0	1.5	.0	.0	.0		8.5	2.8	2.1	1.1	.0	.6	.0		84.9
TOT PCT	2.8	5.2	1.6	.0	.0	.0	*	9.6	2.2	.8	1.2	*	.5	.0		85.8
TOT OBS:	2385															

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	2.5	1.6	.4	.1	.0		5.0	11.2	7.1	5.9	5.3	3.0	3.1	3.8	5.6	5.4	
NE	.5	3.5	3.5	.8	.1	.0		8.4	12.3	12.9	9.4	6.7	5.3	5.3	9.2	7.6	9.5	
E	.5	4.3	6.5	1.3	.1	.0		12.6	13.1	12.8	12.3	15.1	8.8	12.0	14.4	12.7	12.4	
SE	.7	6.6	7.5	1.1	.1	.0		15.9	12.3	14.6	14.6	16.6	16.1	17.7	15.4	15.9	16.0	
S	1.0	6.9	6.6	1.0	.3	.0		15.8	11.8	13.9	15.2	15.4	16.9	17.6	17.1	16.5	13.8	
SW	.8	7.1	6.7	2.4	.8	*		17.8	14.1	16.9	17.5	16.7	19.4	19.7	16.4	17.3	17.6	
W	.7	5.2	6.2	2.7	.7	.1		15.6	15.4	12.8	15.1	16.9	21.0	16.0	14.6	15.2	15.5	
NW	.4	2.8	3.1	.8	.3	*		7.4	13.7	8.3	9.0	6.3	6.1	7.0	7.6	7.8	6.8	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.5							1.5	.0	.6	1.1	.9	3.4	1.6	1.5	1.5	2.5	
TOT OBS	218	1349	1450	370	78	5	3470		13.0	689	363	426	297	706	264	399	325	
TOT PCT	6.3	38.9	41.8	10.7	2.2	.1		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	1.5	2.4	.9	.2	.0			5.0	11.2	6.7	4.4	3.3	5.5	
NE	1.9	4.3	1.9	.3	.0			8.4	12.3	11.7	6.1	6.4	8.5	
E	2.1	6.8	3.6	.2	.0			12.6	13.1	12.6	12.6	12.6	12.7	
SE	3.2	8.3	4.1	.2	*			15.9	12.3	14.6	16.4	17.1	15.9	
S	4.0	7.9	3.5	.2	*			15.8	11.8	14.4	16.0	17.5	15.3	
SW	3.3	8.8	3.9	1.4	.3			17.8	14.1	17.1	17.8	18.8	17.4	
W	2.5	6.7	4.5	1.7	.2			15.6	15.4	13.6	18.6	15.6	15.3	
NW	1.6	3.5	1.6	.6	.1			7.4	13.7	8.6	6.2	7.1	7.3	
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	
CALM	1.5							1.5	.0	.8	1.9	1.5	1.9	
TOT OBS	752	1689	837	160	23	3470			13.0	1052	723	970	725	
TOT PCT	21.7	48.7	24.1	4.6	.7			100.0		100.0	100.0	100.0	100.0	

## APRIL

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1857-1969

AREA 0017 CAPE LEEUWIN  
33.9S 114.5E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOURL	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	.8	4.8	40.6	41.2	10.6	1.8	.2	12.8	100.0	1052
06009	1.9	3.7	36.7	42.9	11.6	2.9	.3	13.6	100.0	723
12015	1.5	5.8	38.0	41.8	10.3	2.5	.1	13.1	100.0	970
18021	1.9	4.6	39.7	41.7	10.2	1.9	.0	12.6	100.0	725
TOT	51	167	1349	1450	370	78	5	13.0	100.0	3470
PCT	1.5	4.8	38.9	41.8	10.7	2.2	.1			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	1.4	.6	1.7	1.4		4.9
NE	3.3	1.0	2.3	2.3		4.6
E	5.9	1.9	3.6	2.4		3.9
SE	4.3	2.8	6.1	2.6		4.5
S	2.5	2.7	6.0	3.7		5.3
SW	2.0	4.0	8.5	4.1		5.5
W	2.3	2.6	6.8	3.0		5.3
NW	1.2	.6	3.1	2.1		5.5
VAR	.0	.0	.0	.0		.0
CALM	.5	.0	.3	.3		4.3
TOT OBS	302	212	497	282	1293	4.9
TOT PCT	23.4	16.4	38.4	21.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.1	.2	1.0	.3	.1	.0	.0	.1	3.3	
NE	.0	.0	.1	.7	.9	1.0	.1	.2	.0	.0	5.9	
E	.0	.1	.1	.7	1.6	1.2	.3	.3	.1	.3	9.2	
SE	.0	.5	.6	2.2	2.1	.5	.8	.0	.0	.0	9.3	
S	.1	.2	1.0	3.0	2.4	.9	.2	.1	.1	.1	7.0	
SW	.0	.3	1.8	4.7	3.0	.9	.3	.0	.1	.1	7.4	
W	.1	.1	* 1.1	3.5	1.9	.8	.3	.0	.0	.0	6.9	
NW	.0	.0	.5	1.6	.5	.6	.2	.0	.2	.3	3.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.2	.1	.0	.0	.0	.6	
TOT OBS	3	2	16	85	243	161	56	28	2	10	687	1293
TOT PCT	.2	.2	1.2	6.6	18.8	12.5	4.3	2.2	.2	.8	53.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>4000	2.8	3.3	3.3	3.3	3.3	3.3	3.4	3.4
>3500	6.7	7.4	7.5	7.5	7.5	7.5	7.6	7.6
>2000	17.2	19.6	19.9	19.9	19.9	19.9	20.0	20.0
>1000	33.3	38.0	38.6	38.7	38.7	38.7	38.7	38.7
>600	37.0	43.9	44.9	45.1	45.2	45.2	45.2	45.2
>300	38.0	45.1	46.2	46.3	46.4	46.4	46.5	46.5
>150	38.0	45.2	46.3	46.5	46.5	46.5	46.6	46.6
>0	38.1	45.4	46.5	46.7	46.8	46.8	46.9	46.9
TOTAL	497	592	607	609	610	610	611	611

TOTAL NUMBER OF OBS: 1304

PCT FREQ NH &lt;5/8: 53.1

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBS	TOTAL OBS
	9.7	13.2	10.7	9.5	9.8	7.8	9.1	13.1	17.1	1446



PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1857-1969

APRIL

AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	TOT %	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
1/2<1	PCP	.0	.0	.0	*	.1	*	.1	.0	.0	.0	.3	
	NO PCP	.2	.1	*	.1	.1	.1	.1	.1	.0	.0	.7	
	TOT %	.2	.1	*	.1	.2	.1	.2	.1	.0	.0	1.0	
1<2	PCP	.0	.0	.0	.0	.0	*	.0	*	.0	.0	.1	
	NO PCP	*	*	.1	.1	*	.0	*	*	.0	.0	.3	
	TOT %	*	*	.1	.1	*	*	*	.1	.0	.0	.4	
2<5	PCP	.0	.1	*	.1	.1	.2	.1	*	.0	.0	.6	
	NO PCP	.1	*	*	.1	.2	.1	.2	.1	.0	.0	.8	
	TOT %	.1	.1	.1	.2	.3	.2	.3	.1	.0	.0	1.4	
5<10	PCP	.1	.5	.5	.3	.7	1.5	1.9	.8	.0	.0	6.3	
	NO PCP	1.3	1.9	3.5	4.4	4.9	5.0	4.7	2.5	.0	.3	28.6	
	TOT %	1.4	2.4	4.1	4.7	5.7	6.4	6.6	3.3	.0	.3	34.9	
10+	PCP	.1	.2	.3	.1	.2	.7	.5	.2	.0	.0	2.3	
	NO PCP	3.3	5.2	8.9	10.3	9.7	10.7	7.4	4.0	.0	.6	60.0	
	TOT %	3.4	5.4	9.1	10.4	9.9	11.4	8.0	4.1	.0	.6	62.3	
TOT OBS		2308											
TOT PCT		5.1	8.0	13.4	15.5	16.0	18.3	15.1	7.7	.0	.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	*	
	11-21	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.0	*	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	*	.1	.1	.1	*	.0	.0	.2	
	11-21	*	.0	*	*	*	.1	.1	*	.0	.0	.3	
	22+	.1	.1	.0	.0	.0	.0	.1	*	.0	.0	.3	
	TOT %	.1	.1	*	.1	.1	.1	.2	*	.0	.0	.9	
1<2	0-3	*	.0	.0	.0	.0	.0	.0	*	.0	.0	.1	
	4-10	.0	*	*	*	.0	.0	*	.0	.0	.0	.1	
	11-21	.0	.0	.1	*	*	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	*	.0	*	.0	.0	.1	
	TOT %	*	*	.1	.1	*	*	*	.1	.0	.0	.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	*	*	*	*	*	*	*	*	.0	.0	.3	
	11-21	.1	.1	*	.1	.2	.1	.1	.0	.0	.0	.6	
	22+	*	.1	.0	*	.1	.1	.1	.1	.0	.0	.5	
	TOT %	.1	.2	.1	.2	.3	.2	.3	.1	.0	.0	1.4	
5<10	0-3	*	.2	.1	.2	.2	.3	.3	*	.0	.2	1.6	
	4-10	.8	.9	1.3	1.7	2.6	2.4	1.9	1.3	.0	.0	12.9	
	11-21	.4	.8	1.7	2.1	2.0	2.1	2.5	1.3	.0	.0	12.9	
	22+	.1	.3	.6	.3	.3	1.1	1.6	.4	.0	.0	4.7	
	TOT %	1.3	2.2	3.7	4.4	5.1	6.0	6.3	3.0	.0	.2	32.2	
10+	0-3	.3	.2	.2	.4	.5	.5	.4	.2	.0	.9	3.6	
	4-10	1.7	2.2	3.1	4.7	4.7	4.6	3.3	1.7	.0	.0	25.9	
	11-21	1.3	2.5	5.1	5.5	4.2	4.6	3.6	2.0	.0	.0	28.6	
	22+	.3	.5	.8	.7	.7	2.0	1.5	.4	.0	.0	6.9	
	TOT %	3.5	5.3	9.3	11.4	10.0	11.7	8.8	4.3	.0	.9	65.1	
TOT OBS		2559											
TOT PCT		5.1	7.8	13.2	16.1	15.6	18.1	15.5	7.5	.0	1.1	100.0	

## APRIL

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1857-1969AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HRUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <4/8 ANY HGT	TOTAL OBS
00003	.0	.3	1.3	5.4	21.7	14.2	3.8	3.2	.0	.5	50.4	49.6	373
06009	.3	.0	.6	8.6	14.5	11.1	5.0	2.5	.0	.6	43.2	56.8	359
12015	.3	.3	1.8	5.4	16.8	12.0	2.7	1.2	.6	1.5	42.6	57.4	333
18021	.3	.0	1.0	5.1	17.5	10.5	5.1	1.6	.3	.6	41.9	58.1	315
TOT	3	2	16	85	244	166	57	30	3	11	617	763	1380
PCT	.2	.1	1.2	6.2	17.7	12.0	4.1	2.2	.2	.8	44.7	55.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HRUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	.9	.4	.9	34.1	63.6	763
06009	.2	1.2	.7	.9	27.0	70.0	564
12015	.0	.7	.1	2.1	38.4	58.8	730
18021	.0	1.4	.3	2.1	30.2	66.0	577
TOT	2	27	10	39	866	1690	2634
PCT	.1	1.0	.4	1.5	32.9	64.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HRUR (GMT)	<150 <500D	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	2.0	8.3	45.0	46.7	351
06009	.3	1.4	11.0	34.0	55.0	347
12015	.3	2.6	8.7	36.9	54.5	312
18021	.3	1.4	8.5	35.7	55.8	294
TOT	3	24	119	496	689	1304
PCT	.2	1.8	9.1	38.0	52.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.1	.2	.2	.1	.1	13	.8
70/74	.0	.0	.3	.6	2.0	2.8	2.9	1.8	180	10.5
65/69	.0	.1	.1	1.6	8.4	15.1	13.5	6.0	773	44.9
60/64	.0	.1	.2	2.6	9.9	11.9	9.2	3.2	636	37.0
55/59	.0	.0	.1	.3	1.3	1.7	2.4	.5	113	6.6
50/54	.0	.0	.0	.0	.1	.1	.1	.1	5	.3
45/49	.0	.0	.0	.0	.0	.0	.1	.0	1	.1
TOTAL	0	2	11	95	379	546	487	201	1721	100.0
PCT	.0	.1	.6	5.5	22.0	31.7	28.3	11.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	.1	.2	.1	.1	.*	.0	.1	.2	.0	.1
70/74	1.2	1.7	2.1	1.1	.8	.5	1.3	1.4	.0	.2
65/69	2.5	3.6	6.3	7.0	5.4	5.8	8.4	5.3	.0	.6
60/64	1.0	2.3	4.3	6.3	7.4	8.7	5.5	1.4	.0	.2
55/59	.2	.3	.5	.8	1.6	2.5	.6	.2	.0	.0
50/54	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0
45/49	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
TOTAL	5.0	8.1	13.2	15.3	15.3	17.8	15.9	8.5	.0	1.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HRUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	80	75	73	65	59	56	49	65.3	1040
06009	79	76	73	66	60	57	36	65.4	718
12015	79	74	72	65	59	57	51	65.3	985
18021	76	73	70	64	59	57	50	64.3	746
TOT	80	75	72	65	59	57	49	65.3	3489

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HRUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	8.1	17.3	32.4	28.8	13.4	76	479
06009	.0	9.5	30.0	33.0	19.8	7.8	73	400
12015	.0	3.6	20.6	31.0	32.8	12.0	77	467
18021	.0	3.9	20.7	28.9	32.5	14.5	78	415
TOT	0	110	385	552	504	211	76	1761

PERIOD: (PRIMARY) 1913-1969  
(OVER-ALL) 1857-1969

APRIL

AREA 0017 CAPE LEEUWIN  
33.9S 114.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	% FOG	% NO FOG
14/16	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.0
11/13	.0	.0	.0	.0	.0	.1	.0	.0	2	.0	.1
9/10	.0	.0	.0	.0	.0	.0	.0	.0	4	.0	.2
7/8	.0	.0	.0	.0	.2	.0	.2	.1	13	.0	.6
6	.0	.0	.0	.0	.0	.1	.2	.2	13	.0	.6
5	.0	.0	.0	.0	.2	.3	.4	.0	20	.0	.9
4	.0	.0	.0	.0	.2	.4	.3	.0	23	.0	1.1
3	.0	.0	.0	.1	.5	1.1	.7	.0	50	.1	2.4
2	.0	.0	.0	.2	1.4	1.1	.5	.0	66	.1	3.2
1	.0	.0	.1	.6	2.6	2.8	.2	.0	129	.2	6.2
0	.0	.0	.1	1.0	3.2	3.7	.0	.0	162	.3	7.7
-1	.0	.0	.1	1.7	5.7	3.9	.0	.0	232	.4	11.4
-2	.0	.0	.4	2.5	6.2	1.4	.0	.0	212	.2	10.2
-3	.0	.0	1.0	3.7	7.2	1.0	.0	.0	263	.2	12.8
-4	.0	.0	.9	5.7	4.8	.2	.0	.0	235	.1	11.5
-5	.0	.0	1.4	4.6	2.8	.0	.0	.0	181	.0	8.9
-6	.0	.0	.7	4.9	1.2	.0	.0	.0	139	.0	6.9
-7/-8	.0	.0	2.9	5.6	1.0	.0	.0	.0	193	.0	9.5
-9/-10	.0	.1	2.0	.8	.0	.0	.0	.0	59	.0	2.9
-11/-13	.0	.1	.8	.2	.0	.0	.0	.0	23	.0	1.1
-14/-16	.0	.0	.0	.0	.0	.0	.0	.0	3	.0	.1
-17/-19	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.0
TOTAL	1	7	215	649	755	329	13	2025	28	1.4	98.6
PCT	.3	10.6	32.0	37.3	16.2	2.8	.6	100.0	1.4	98.6	

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.1	.0	.0	.0	.0	.4	.0	.4	.1	.0	.0	.0	.6
1-2	.0	1.1	.3	.0	.0	.0	1.3	.0	2.1	.8	.0	.0	.0	2.9
3-4	.0	.8	1.1	.0	.0	.0	1.8	.0	.9	1.7	.2	.0	.0	2.8
5-6	.0	.1	.8	.1	.0	.0	1.0	.0	.1	2.3	.3	.0	.0	2.6
7	.0	.0	.1	.4	.0	.0	.5	.0	.0	.8	.3	.0	.0	1.2
8-9	.0	.0	.0	.0	.1	.0	.1	.0	.0	.1	.4	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.1	2.2	.5	.1	.0	5.2	.1	3.5	5.9	1.4	.0	.0	10.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.3	.1	.0	.0	.0	.5	.2	.4	.0	.0	.0	.0	.6
1-2	.1	1.6	1.1	.0	.0	.0	2.7	.1	2.2	.4	.0	.0	.0	2.7
3-4	.0	1.0	3.0	.2	.0	.0	4.3	.0	1.8	2.2	.3	.0	.0	4.3
5-6	.0	.9	3.3	.5	.0	.0	4.7	.0	.2	2.1	.7	.0	.0	3.0
7	.0	.0	1.6	.3	.0	.0	1.9	.0	.0	1.6	.2	.0	.0	1.8
8-9	.0	.0	.5	.4	.0	.0	.9	.0	.0	.4	.2	.0	.0	.5
10-11	.0	.0	.0	.1	.1	.0	.3	.0	.0	.0	.1	.0	.0	.2
12	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.1	.1	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.7	2.7	1.9	.1	.0	15.6	.3	4.6	6.7	1.7	.0	.0	13.4

PERIOD: (OVER-ALL) 1963-1969

APRIL

AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 1B (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.7	.0	.0	.0	.0	1.1	.2	.4	.0	.0	.0	.0	.6
1-2	.1	3.5	.7	.0	.0	.0	4.4	.0	2.5	.8	.0	.0	.0	3.2
3-4	.0	1.3	3.1	.3	.0	.0	4.7	.0	1.7	3.3	.1	.0	.0	5.1
5-6	.0	.2	1.9	.4	.1	.0	2.6	.0	.4	2.7	*	.0	.0	3.2
7	.0	.0	.7	.5	.0	.0	1.2	.0	.0	1.2	.3	*	.0	1.5
8-9	.0	.0	.3	.2	.0	.0	.5	.0	.0	.1	.6	.1	.0	.9
10-11	.0	.3	.1	.0	.0	.0	.4	.0	.0	.1	.8	.1	.0	1.1
12	.0	.1	.1	.0	.1	.0	.4	.0	.0	.1	.1	.1	.0	.4
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0	.3
17-19	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.1	.0	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	6.2	7.0	1.4	.4	.0	15.5	.2	5.0	8.4	2.2	.7	.0	16.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	.4	.0	.0	.0	.0	.8	.0	.4	.0	.0	.0	.0	.4	
1-2	.3	2.5	.5	.0	.0	.0	3.2	.0	.7	.2	.0	.0	.0	.9	
3-4	.0	1.3	2.3	.1	.0	.0	3.7	.0	.7	1.4	.0	.0	.0	2.1	
5-6	.0	.0	2.5	.9	.0	.0	3.4	.0	.0	1.2	.2	.0	.0	1.4	
7	.2	.0	.7	.8	.2	.0	1.8	.1	.0	.2	.6	.2	.0	1.0	
8-9	.1	.0	.0	.3	.1	.0	.5	*	.0	.0	.0	.0	*	.1	
10-11	.0	.0	.1	.1	.2	.0	.5	.0	.0	.0	.1	*	.0	.2	
12	.1	.0	.0	.0	.0	.0	.1	*	.0	.0	.0	.0	.0	*	
13-16	.0	.0	.0	.4	.1	.0	.5	.0	.0	.0	.1	.0	.0	.1	
17-19	.0	.0	.0	.3	.1	.0	.5	.0	.0	.0	.0	.1	.0	.1	
20-22	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.1	4.2	6.1	2.9	1.0	.0	15.2	.1	1.8	2.9	1.1	.4	.0	6.3	98.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.5	3.1	.3	.0	.0	.0	6.9	
1-2	.8	15.9	4.6	.0	.0	.0	21.4	
3-4	.0	9.5	17.8	1.2	.0	.0	28.6	
5-6	.0	1.9	16.6	3.1	.1	.0	21.8	
7	.3	.0	6.8	3.4	.4	.0	10.9	
8-9	.1	.0	1.5	2.0	.4	.0	4.1	
10-11	.0	.3	.4	1.4	.5	.0	2.6	
12	.1	.1	.3	.4	.3	.0	1.2	
13-16	.0	.0	.1	1.0	.3	.0	1.4	
17-19	.0	.0	.0	.4	.4	.0	.8	
20-22	.0	.0	.0	.0	.1	.0	.1	
23-25	.0	.0	.0	.0	.1	.0	.1	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.9	30.9	48.5	12.9	2.7	.0	100.0	734

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.7	5.2	6.8	4.2	2.1	.4	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	219	4
6-7	.0	.5	2.9	7.5	5.6	2.7	1.5	.8	1.0	.1	.2	.1	.0	.0	.0	.0	.0	.0	.0	252	7
8-9	.0	.0	1.5	4.2	5.6	4.5	2.6	1.9	1.1	.4	.2	.0	.1	.0	.0	.0	.0	.0	.0	242	8
10-11	.0	.2	.5	1.5	2.4	2.8	2.5	1.9	1.4	.2	.2	.1	.5	.0	.0	.0	.0	.0	.0	154	10
12-13	.0	.0	.2	.3	1.2	1.5	1.4	.8	.8	.1	.2	.3	.1	.0	.0	.0	.0	.0	.0	75	10
>13	.0	.0	.0	.1	.2	.8	.9	.5	.8	.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	39	11
TOT PCT	1.7	.6	1.3	1.5	1.6	1.6	.7	.4	.8	.1	.2	.0	.1	.0	.0	.0	.0	.0	.0	114	6
TOTAL	2.7	7.2	14.5	21.1	20.5	15.9	10.8	6.9	6.8	1.0	1.1	.5	.9	.0	.0	.0	.0	.0	.0	1099	7
PCT	2.5	6.6	13.2	19.2	18.7	14.5	9.8	6.3	6.2	.9	1.0	.5	.8	.0	.0	.0	.0	.0	.0	100.0	

MAY

PERIOD: (PRIMARY) 1913-1972  
(OVER-ALL) 1857-1972AREA 0017 CAPE LEEUWIN  
33.9S 114.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGG NO PCPN	FGG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	5.0	6.7	.5	.0	.0	.0	.0	12.2	1.5	1.0	1.5	.0	.5	.0	83.9	
NE	2.6	2.3	.5	.0	.0	.0	.0	5.3	1.1	1.1	2.9	.0	.3	.0	89.4	
E	2.0	2.0	.6	.0	.0	.0	.0	4.6	1.4	1.2	1.8	.0	.0	.0	91.0	
SE	2.0	4.5	2.2	.0	.0	.0	.0	8.7	.8	1.1	1.4	.0	.0	.0	87.9	
S	2.9	8.6	1.0	.0	.0	.0	.0	12.5	2.5	.0	2.8	.0	.0	.4	81.9	
SW	3.9	11.9	.8	.0	.0	.0	.2	16.8	4.9	.9	.1	.0	.0	.0	77.7	
W	5.9	10.9	1.7	.0	.0	.0	.0	24.3	6.6	.7	.2	.0	.0	.0	68.4	
NW	7.5	11.8	2.2	.0	.0	.0	.0	21.6	5.6	.4	.4	.0	.0	.0	72.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	6.3	.0	.0	.0	.0	.0	.0	93.8
TOT PCT	4.3	9.6	1.2	.0	.0	.0	*	15.1	3.7	.8	1.1	.0	.1	*	79.4	
TOT OBS:	2245															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGG NO PCPN	FGG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
00003	4.2	10.3	.5	.0	.0	.0	.0	14.9	3.2	.6	1.1	.0	.2	.0	80.5	
06009	4.4	8.7	1.0	.0	.0	.0	.2	14.0	3.7	.4	1.2	.0	.2	.0	80.8	
12015	3.9	9.3	2.0	.0	.0	.0	.0	15.2	3.9	.7	1.0	.0	.2	.2	78.9	
18021	4.0	9.2	1.5	.0	.0	.0	.0	14.8	3.9	1.3	1.2	.0	.0	.0	79.0	
TOT PCT	4.2	9.4	1.2	.0	.0	.0	*	14.8	3.6	.7	1.1	.0	.1	*	79.8	
TOT OBS:	2313															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.5	3.6	4.5	1.9	.2	.1		10.7	14.4	13.3	15.3	9.1	11.7	8.9	8.5	7.8	10.1	
NE	.6	4.5	4.3	.8	*	.0		10.3	11.8	10.8	11.4	9.4	9.9	7.8	9.9	12.1	12.9	
E	.6	4.3	3.2	.3	.1	.0		8.4	10.5	8.0	8.4	6.5	8.6	6.3	10.8	18.4	10.9	
SE	.2	4.2	3.7	.4	.2	.0		8.6	12.0	7.2	7.9	7.2	12.6	8.5	9.0	11.4	7.5	
S	.5	4.8	4.6	1.3	.2	*		11.5	13.1	11.8	10.2	12.4	10.7	12.7	10.1	11.4	10.5	
SW	.3	6.5	6.9	4.0	1.1	*		18.8	16.3	18.7	17.0	22.6	15.9	21.2	16.6	19.5	13.2	
W	.5	4.1	6.9	5.0	1.6	.3		18.3	19.2	17.4	16.8	20.1	16.2	18.9	21.0	17.4	19.3	
NW	.4	3.0	5.1	3.2	.6	.1		12.2	17.4	11.8	11.8	12.4	13.6	11.9	12.4	11.0	14.8	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.1							1.1	.0	.9	1.2	.2	.8	1.7	1.8	1.0	.7	
TOT OBS	150	1120	1264	543	128	14	3228		14.9	674	337	436	257	632	223	398	271	
TOT PCT	4.6	35.0	39.2	16.8	4.0	.4	100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	06	12	18	21
N	2.0	4.6	3.2	.8	.1		10.7	14.4	14.0	10.1	8.8	8.7			
NE	2.2	6.0	1.8	.3	*		10.3	11.8	11.0	9.6	8.3	12.4			
E	2.3	5.0	1.0	.2	.0		8.4	10.5	8.1	7.3	9.0	9.4			
SE	1.6	5.3	1.4	.3	.0		8.6	12.0	7.5	9.2	8.6	9.8			
S	2.2	5.9	2.8	.3	.1		11.5	13.1	11.3	11.8	12.0	11.0			
SW	2.5	7.8	5.8	2.5	.2		18.8	16.3	18.2	20.1	20.0	17.0			
W	1.5	6.6	6.0	3.6	.6		18.3	19.2	17.2	18.7	19.5	18.2			
NW	1.4	4.6	4.1	1.9	.2		12.2	17.4	11.8	12.8	12.0	12.5			
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0			
CALM	1.1						1.1	.0	1.0	.4	1.8	.9			
TOT OBS	539	1482	840	325	42	3228		14.9	1011	693	855	669			
TOT PCT	16.7	45.9	26.0	10.1	1.3	100.0			100.0	100.0	100.0	100.0			



PERIOD: (PRIMARY) 1913-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0017 CAPE LEEUWIN  
33.95 114.06

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOOR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT	TOTAL
				11-21	22-33	34-47			FREQ	OBS
00003	1.0	2.9	33.8	40.0	17.3	4.4	.7	15.3	100.0	1011
06009	.4	4.0	34.9	37.2	18.8	4.2	.4	15.3	100.0	693
12015	1.8	4.2	35.2	38.1	15.6	4.0	.1	14.6	100.0	855
18021	.9	3.4	36.5	41.3	14.3	3.1	.4	14.2	100.0	669
TOT	34	116	1129	1264	543	128	14	14.9		3228
PCT	1.1	3.6	35.0	39.2	16.8	4.0	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL	MEAN
					OBS	CLOUD COVER
N	3.0	1.5	2.5	2.3		4.4
NE	5.0	1.2	2.8	1.4		3.4
E	3.7	1.2	2.1	1.0		3.4
SE	1.7	1.6	2.4	1.9		4.9
S	1.5	1.8	5.8	3.0		5.6
SW	1.5	5.1	11.3	3.7		5.5
W	1.5	3.9	9.3	4.0		5.6
NW	2.2	1.5	4.7	2.9		5.2
VAR	.0	.0	.0	.0		.0
CALM	.3	.1	.3	.2		4.2
TOT OBS	265	230	532	264	1292	5.0
TOT PCT	20.5	17.8	41.2	20.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH	<5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY	HGT	OBS
N	.0	.0	.2	.3	.8	1.0	.6	.1	.0	.3	6.1		
NE	.0	.0	.3	.3	1.0	.7	.4	.1	.0	.7	7.8		
E	.0	.0	.1	.3	.9	.5	.1	.0	.1	.1	5.9		
SE	.0	.0	.1	1.0	.9	.9	.7	.2	.0	.0	4.0		
S	.0	.1	.2	1.2	3.8	1.8	.6	.0	.0	.2	4.5		
SW	.0	*	.2	2.7	5.1	2.7	1.1	.4	.0	.1	9.2		
W	.0	*	.6	2.2	5.0	2.2	.7	.2	.1	.0	7.7		
NW	.0	*	.9	2.0	1.9	1.1	.0	.0	*	*	5.5		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.5		
TOT OBS	0	2	17	114	253	151	69	13	2	8	663	1292	
TOT PCT	.0	.2	1.3	8.8	19.6	11.7	5.3	1.0	.2	.6	51.3	100.0	

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
OR >5000	.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0
OR >4000	1.6	1.9	2.0	2.0	2.0	2.0	2.0	2.0
OR >3000	6.2	7.1	7.2	7.2	7.2	7.2	7.2	7.2
OR >2000	16.2	18.3	19.0	19.0	19.0	19.0	19.0	19.0
OR >1000	32.4	36.8	38.1	38.3	38.3	38.3	38.4	38.4
OR >800	34.0	45.2	46.9	47.2	47.3	47.3	47.4	47.4
OR >700	39.5	46.2	48.2	48.5	48.6	48.6	48.7	48.7
OR >600	39.5	46.4	48.4	48.7	48.7	48.7	48.8	48.8
OR >500	39.5	46.4	48.4	48.7	48.7	48.7	48.8	48.8
TOTAL	320	611	637	641	642	642	643	643

TOTAL NUMBER OF OBS: 1317

PCT FREQ NH <5/8: 51.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL
										OBS
9.3	9.1	8.9	11.7	11.2	8.5	11.6	12.7	17.0	.0	1479

PERIOD: (PRIMARY) 1913-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	
	NN PCP	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
	TOT %	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NN PCP	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
	TOT %	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
1<2	PCP	.0	*	*	.0	.0	.1	.1	.1	.0	.0	.3	
	NN PCP	*	*	.0	.0	*	.0	*	*	.0	.0	.2	
	TOT %	*	*	*	.0	*	.1	.1	.1	.0	.0	.4	
2<5	PCP	.1	.1	.0	*	.1	.1	.6	.1	.0	.0	1.2	
	NN PCP	*	*	.0	.1	.1	.2	.2	.1	.0	.0	.8	
	TOT %	.1	.1	.0	.1	.2	.4	.8	.2	.0	.0	1.9	
5<10	PCP	.9	.3	.3	.5	.9	2.5	2.9	2.0	.0	.0	10.3	
	NN PCP	2.8	2.6	2.3	2.2	2.2	4.2	4.4	3.1	.0	.1	23.8	
	TOT %	3.7	2.9	2.6	2.6	3.1	6.8	7.3	5.0	.0	.1	34.1	
10+	PCP	.3	.1	*	.2	.4	.8	1.0	.5	.0	.0	3.3	
	NN PCP	6.5	6.7	4.7	5.0	7.5	12.7	9.9	6.5	.0	.6	60.1	
	TOT %	6.8	6.8	4.7	5.2	7.9	13.4	10.9	7.0	.0	.6	63.4	
TOT OBS													2243
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
	22+	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	
	TOT %	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	
	22+	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	*	*	*	.0	.0	.1	.1	.1	.0	.0	.2	
	22+	.0	.0	.0	.0	*	*	.1	*	.0	.0	.2	
	TOT %	*	*	*	.0	*	.1	.1	.1	.0	.0	.4	
2<5	0-3	.0	.0	.0	.0	*	*	.0	.0	.0	.0	*	
	4-10	.0	.1	.0	.1	.1	*	.1	.0	.0	.0	.3	
	11-21	*	.0	.0	*	.1	.2	.2	.1	.0	.0	.7	
	22+	.1	*	.0	.0	*	.1	.5	.1	.0	.0	.7	
	TOT %	.1	.1	.0	.1	.2	.3	.7	.2	.0	.0	1.8	
5<10	0-3	.1	.2	.3	.1	.2	*	.2	.1	.0	.1	1.3	
	4-10	.9	.8	1.1	1.0	.6	1.5	1.0	.7	.0	.0	7.6	
	11-21	1.5	1.4	1.0	1.1	1.3	2.3	2.5	2.0	.0	.0	13.2	
	22+	.9	.3	*	.2	.8	2.6	3.3	1.8	.0	.0	10.0	
	TOT %	3.4	2.6	2.4	2.5	2.9	6.4	7.0	4.7	.0	.1	32.1	
10+	0-3	.3	.3	.2	.1	.3	.2	.2	.2	.0	.7	2.4	
	4-10	2.7	3.4	2.7	2.7	4.0	5.5	3.1	2.4	.0	.0	26.6	
	11-21	3.0	3.0	1.8	2.1	3.0	5.2	4.8	3.2	.0	.0	26.1	
	22+	1.0	.5	.1	.1	.7	2.8	3.3	2.0	.0	.0	10.4	
	TOT %	7.0	7.2	4.8	5.0	8.0	13.6	11.4	7.8	.0	.7	65.5	
TOT OBS													2435
TOT PCT													100.0

MAY

PERIOD: (PRIMARY) 1913-1972  
(OVER-ALL) 1857-1972AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL DBS
00003	.0	.3	2.2	8.2	19.1	12.8	6.0	1.9	.5	1.4	52.3	47.7	367
06009	.0	.0	1.1	9.4	19.3	11.3	6.1	.0	.0	.8	47.9	52.1	363
12015	.0	.3	.9	6.9	17.8	8.4	3.4	1.2	.0	.3	39.3	60.7	321
18021	.0	.0	.6	9.5	17.6	11.9	4.5	.6	.0	.6	45.2	54.8	336
TOT	0	2	17	118	256	155	70	13	2	11	644	743	1387
PCT	.0	.1	1.2	8.5	18.5	11.2	5.0	.9	.1	.8	46.4	53.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL DBS
00003	.0	.0	1.0	1.4	35.3	62.3	725
06009	.0	.2	.4	2.0	27.4	70.1	558
12015	.0	.1	.3	1.8	36.6	61.1	669
18021	.4	.0	.0	1.8	27.8	70.1	551
TOT	2	2	11	43	807	1638	2503
PCT	.1	.1	.4	1.7	32.2	65.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL DBS
00003	.0	2.6	12.9	41.8	45.3	349
06009	.0	1.4	13.6	36.4	50.0	352
12015	.0	1.3	9.7	32.8	57.5	299
18021	.0	.9	12.9	35.3	51.7	317
TOT	0	21	163	484	670	1317
PCT	.0	1.6	12.4	36.8	50.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL DBS	PCT FREQ
75/79	.0	.0	.1	.0	.0	.0	.0	.0	1	.1
70/74	.0	.0	.1	.2	.6	1.3	.8	.2	54	3.1
65/69	.0	.1	.3	1.4	8.0	8.9	8.0	4.3	485	28.0
60/64	.0	.1	.4	3.6	15.3	17.0	10.6	4.3	888	51.3
55/59	.0	.0	.3	1.7	3.4	5.7	4.4	1.5	283	16.3
50/54	.0	.0	.0	.2	.3	.5	.1	.1	20	1.2
TOTAL	0	3	20	113	425	519	412	179	1731	100.0
PCT	.0	.2	1.2	6.5	24.6	33.4	23.8	10.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0
70/74	1.1	.7	.2	.1	.1	.0	.2	.8	.0	.0
65/69	4.2	4.2	2.8	1.8	1.8	2.1	4.6	6.1	.0	.3
60/64	4.2	4.5	3.9	4.8	5.7	12.2	11.0	4.5	.0	.5
55/59	.8	.9	.5	.5	3.8	6.0	2.7	1.0	.0	.1
50/54	.1	.0	.0	.1	.5	.5	.1	.0	.0	.0
TOTAL	10.4	10.4	7.5	7.2	11.9	20.8	18.6	12.4	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL DBS
00003	77	71	69	63	56	54	51	62.8	993
06009	76	73	70	64	57	54	53	63.8	681
12015	73	71	69	63	57	55	52	63.0	869
18021	73	71	68	62	57	53	52	62.1	682
TOT	77	72	69	63	57	54	51	62.9	3225

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL DBS
00003	.0	7.4	19.7	33.8	26.8	12.3	76	497		
06009	.0	9.2	32.3	31.3	21.1	6.1	73	412		
12015	.0	8.8	23.1	31.2	25.7	11.2	75	455		
18021	.0	7.1	24.6	36.3	20.7	11.2	74	410		
TOT	0	144	437	588	422	183	75	1774		

PERIOD: (PRIMARY) 1913-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	40 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WD FOG
7/8	.0	.0	.0	.0	.0	.1	.1	2	.0	.1
6	.0	.0	.0	.0	.1	.1	.0	2	.0	.1
5	.0	.0	.0	.1	.0	.2	.1	7	.0	.4
4	.0	.0	.0	.2	.5	.5	.1	23	.0	1.2
3	.0	.0	.1	.3	.7	.3	.1	25	.0	1.3
2	.0	.0	.1	.9	1.2	.4	.0	49	.1	2.4
1	.0	.0	.1	.8	1.7	1.1	.0	72	.2	3.5
0	.0	.0	.3	1.8	3.1	1.7	.1	126	.1	6.4
-1	.1	.0	.6	2.7	3.0	.8	.0	139	.1	7.1
-2	.0	.1	.9	3.3	4.2	.4	.0	172	.2	8.6
-3	.0	.1	1.5	4.7	4.3	.3	.0	213	.2	10.8
-4	.0	.0	2.1	4.8	3.0	.1	.0	194	.1	9.9
-5	.0	.1	3.3	5.8	2.6	.1	.0	231	.1	11.8
-6	.0	.4	2.6	5.0	.9	.1	.0	173	.0	8.9
-7/-8	.0	1.0	6.5	6.3	.6	.0	.0	280	.2	14.2
-9/-10	.1	.7	3.6	2.6	.1	.0	.0	137	.2	6.9
-11/-13	.1	1.2	2.5	.7	.1	.0	.0	88	.0	4.5
-14/-16	.0	.5	.2	.1	.0	.0	.0	13	.0	.7
-17/-19	.0	.1	.0	.0	.0	.0	.0	2	.0	.1
TOTAL	3		471		505		6		23	1925
PCT	.2	4.2	24.2	39.8	25.9	5.4	.3	100.0	1.2	98.8

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1	.7	.4	.1	.0	.0	.0	.7
1-2	.0	2.0	.8	.0	.0	.0	2.8	.1	2.5	.4	.0	.0	.0	3.0
3-4	.0	.8	1.7	.0	.0	.0	2.5	.0	1.3	1.6	.0	.0	.0	2.9
5-6	.0	.2	.7	.3	.0	.0	1.3	.0	.2	1.6	.2	.0	.0	1.9
7	.0	.0	.2	.2	.0	.0	.5	.0	.0	.2	.3	.0	.0	.4
8-9	.0	.0	.1	.5	.0	.0	.6	.0	.0	*	.1	.0	.0	.2
10-11	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	*	.0	.0	*
12	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.1	3.5	1.4	.2	.0	8.3	.3	4.4	3.9	.6	.0	.0	9.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.3	.0	.0	.0	.0	.4	.0	.7	.0	.0	.0	.0	.7
1-2	.1	1.8	.6	.0	.0	.0	2.4	*	1.9	.8	.0	.0	.0	2.7
3-4	.0	1.2	.4	.0	.0	.0	1.5	.0	.4	1.2	.0	.0	.0	1.6
5-6	.0	.5	1.2	.0	.0	.0	1.7	.0	.1	.6	.0	.0	.0	.6
7	.0	.0	.4	.0	.0	.0	.4	.0	.0	.3	*	.0	.0	.3
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.6	2.7	.0	.0	.0	6.5	*	3.0	3.0	*	.0	.0	6.1

PERIOD: (OVER-ALL) 1963-1972

MAY

AREA 0017 CAPE LEFOWIN  
33.95 114.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	1-3		4-10	11-21	22-33	34-47	48+			
<1	.1	.3	.0	.0	.0	.0	.4	.2	.4	.0	.0	.0	.0	.5		
1-2	.3	3.5	.4	.0	.0	.0	4.2	.0	4.2	.6	.0	.0	.0	4.8		
3-4	.0	1.7	1.2	.2	.0	.0	3.0	.0	2.5	3.0	.1	.0	.0	5.6		
5-6	.0	.4	2.1	.2	.0	.0	2.7	.0	.9	4.5	.7	.3	.0	6.4		
7	.0	.3	.4	.1	.0	.0	.8	.0	.0	1.2	1.1	.3	.0	2.6		
8-9	.0	.0	.8	.4	.2	.0	1.4	.0	.0	.4	.6	.2	.0	1.2		
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	.7	.2	.0	1.0		
12	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1		
13-16	.0	.0	.3	.4	.0	.0	.6	.0	.0	.0	.4	.3	.0	.6		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1		
20-22	.0	.0	.0	.1	.1	.0	.2	.0	.0	.0	.0	.0	.0	.1		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.4	6.2	5.2	1.5	.3	.0	13.5	.2	8.1	9.8	3.8	1.2	.0	23.0		

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	1-3		4-10	11-21	22-33	34-47	48+				
<1	.3	.2	.0	.0	.0	.0	.5	.0	.3	.0	.0	.0	.0	.3			
1-2	.0	2.0	1.4	.0	.0	.0	3.4	.0	1.3	.8	.0	.0	.0	2.1			
3-4	.0	1.7	2.6	.4	.0	.0	4.6	.0	1.7	1.6	.0	.0	.0	3.2			
5-6	.0	.5	2.8	1.2	.0	.0	4.5	.0	.0	.5	1.0	.0	.0	1.6			
7	.0	.0	1.6	2.6	.2	.0	4.4	.0	.0	.4	.8	.0	.0	1.2			
8-9	.0	.0	.5	.5	.1	.0	1.1	.0	.0	.3	.2	.0	.0	.5			
10-11	.0	.0	.0	1.1	.1	.0	1.2	.0	.0	.0	.3	.1	.0	.5			
12	.0	.0	.0	.9	.1	.0	1.0	.0	.0	.0	.3	.0	.0	.4			
13-16	.0	.0	.0	.4	.4	.1	.9	.0	.0	.0	.2	.1	.0	.3			
17-19	.0	.0	.0	.0	.2	.1	.4	.0	.0	.1	.1	.0	.0	.3			
20-22	.0	.0	.1	.1	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0			
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
TOT PCT	.3	4.4	9.0	7.2	1.1	.2	22.1	.0	3.3	3.7	3.0	.3	.0	10.2			

99.0
------

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.7	3.1	.1	.0	.0	.0	5.9	
1-2	.6	19.1	5.5	.0	.0	.0	25.2	
3-4	.0	11.1	12.9	.6	.0	.0	24.6	
5-6	.0	2.7	13.9	3.6	.3	.0	20.4	
7	.0	.3	4.6	5.0	.5	.0	10.3	
8-9	.0	.0	2.2	2.3	.5	.0	5.0	
10-11	.0	.0	.3	2.5	.4	.0	3.2	
12	.0	.1	.0	1.3	.3	.0	1.7	
13-16	.0	.0	.3	1.4	.8	.1	2.5	
17-19	.0	.0	.1	.3	.3	.1	.8	
20-22	.0	.0	.1	.3	.1	.0	.5	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.3	36.3	39.9	17.2	3.1	.3	100.0	785

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.9	4.8	5.4	3.0	1.3	.6	.5	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	192	4
6-7	.0	.7	4.3	5.9	3.8	3.0	2.6	.7	1.1	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	254	7
8-9	.0	.4	1.1	3.1	3.5	4.5	3.9	2.6	1.3	1.0	.7	.1	.4	.0	.0	.0	.0	.0	.0	257	9
10-11	.0	.0	.4	1.1	3.1	3.9	3.1	1.9	2.1	.5	.3	.2	.0	.0	.0	.0	.0	.0	.0	189	10
12-13	.0	.0	.4	.8	.5	.8	1.6	1.6	1.7	.4	.4	.1	.3	.0	.0	.0	.0	.0	.0	102	11
>13	.0	.0	.0	.1	.0	.3	.5	.5	.6	.4	.6	.1	.3	.0	.0	.0	.0	.0	.0	109	15
INDEX	.3	.9	1.3	2.3	1.4	.9	.5	.9	.4	.4	.1	.2	.0	.0	.0	.0	.0	.0	.0	104	7
TOTAL	13	78	149	184	155	159	145	100	84	32	25	8	10	0	0	0	0	0	0	1142	8
PCT	1.1	6.8	13.0	16.1	13.6	13.9	12.7	8.8	7.4	2.8	2.2	.7	.9	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1869-1969

JUNE

AREA 0017 CAPE LEEUWIN  
33.95 114.65

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THOR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	9.6	6.0	1.5	.0	.0	.0	.3	17.4	2.4	2.2	.2	.0	.7	.0	78.2
NE	4.4	3.8	.0	.0	.0	.0	.0	8.3	1.7	.0	.5	.0	.0	.0	89.5
E	3.3	5.5	1.5	.0	.0	.0	.0	9.6	3.3	3.5	.0	.0	.0	.0	93.5
SE	5.4	8.5	1.0	.0	.0	.0	1.0	15.9	.7	2.2	.0	.0	.0	.0	81.2
S	3.8	10.7	3.3	.0	.0	.0	.0	17.1	4.3	.0	.0	.0	.0	.0	78.7
SW	3.9	14.9	2.1	.0	.0	.0	.2	20.7	4.5	.8	.0	.0	.0	.0	74.4
W	4.9	15.5	1.0	.0	.0	.0	.8	22.1	6.2	1.9	.3	.0	.1	.0	70.3
NW	11.0	13.4	1.3	.0	.0	.0	.3	25.7	7.4	2.5	.3	.0	.4	.0	64.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.3	.0	.0	.0	.0	.0	.0	6.3	.0	.0	.0	.0	.0	.0	93.8
TOT PCT	6.3	11.0	1.4	.0	.0	.0	.3	18.9	4.5	1.6	.2	.0	.2	.0	75.1
TOT OBS:	2074														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THOR LTNG	FOG NO PCPN	FOG NO PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	7.0	10.8	1.4	.0	.0	.0	.3	19.5	4.6	.2	.2	.0	.2	.0	75.3
06009	5.6	11.2	1.2	.0	.0	.0	.6	18.5	5.4	.2	.0	.0	.0	.0	76.1
12015	5.5	11.9	1.9	.0	.0	.0	.2	20.1	2.9	2.6	.5	.0	.2	.0	74.4
18021	5.5	9.6	1.3	.0	.0	.0	.2	16.4	5.5	3.6	.0	.0	.4	.2	75.3
TOT PCT	6.2	10.9	1.5	.0	.0	.0	.3	18.7	4.5	1.6	.2	.0	.2	*	75.2
TOT OBS:	2124														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OPS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	4.6	5.5	3.2	.6	*		14.2	16.6		16.3	14.9	14.8	14.0	11.6	15.4	15.2	11.3
NE	.3	4.0	4.0	1.1	.3	.0		9.7	13.5		10.4	12.0	10.0	9.2	8.1	9.1	9.9	9.0
E	.3	2.6	2.5	.4	.0	.0		5.8	12.3		6.0	5.7	4.9	4.3	6.8	7.8	5.5	5.0
SE	.1	2.5	1.6	.5	.2	.0		4.8	12.6		4.0	3.0	5.0	6.5	5.5	5.5	4.6	5.0
S	.2	3.1	3.6	1.1	.3	*		8.4	14.2		8.6	8.1	7.0	11.7	9.1	7.8	7.7	7.8
SW	.4	4.2	7.4	3.7	1.3	.2		17.3	18.0		15.7	18.4	14.4	19.9	18.4	18.7	17.1	18.5
W	.5	4.3	7.0	6.9	2.5	.4		21.5	20.7		22.6	19.8	23.9	20.3	20.7	19.9	20.2	22.6
NW	.3	3.4	6.3	5.5	1.8	.1		17.4	19.9		15.8	17.0	19.5	13.2	18.0	15.3	20.2	18.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.0							1.0	.0		.5	1.0	.5	.9	1.7	.5	.3	2.5
TOT OBS	94	831	1103	650	203	21	2902		17.2		571	304	401	231	580	211	365	238
TOT PCT	3.2	28.6	38.0	22.4	7.0	.7		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OPS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	1.8	5.6	4.6	2.0	.2			14.2	16.6		15.8	14.5	12.6	13.7
NE	1.8	4.9	2.3	.7	*			9.7	13.5		10.9	9.7	8.4	9.6
E	1.2	2.9	1.4	.2	.0			5.8	12.3		5.9	4.7	7.0	5.3
SE	1.2	2.6	.6	.4	*			4.8	12.6		3.7	5.6	5.5	4.8
S	1.5	4.0	2.2	.6	.1			8.4	14.2		8.4	8.7	8.8	7.4
SW	1.5	7.1	5.7	2.5	.0			17.3	18.0		16.7	16.4	18.5	17.6
W	2.3	5.9	7.0	5.2	1.0			21.5	20.7		21.7	22.6	20.5	21.2
NW	1.6	5.6	5.7	4.0	.5			17.4	19.9		16.3	17.2	17.3	19.3
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	1.0							1.0	.0		.7	.6	1.4	1.2
TOT OBS	403	1119	855	456	69	2902			17.2		875	632	791	604
TOT PCT	13.9	38.6	29.5	15.7	2.4			100.0			100.0	100.0	100.0	100.0

JUNE

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1869-1969AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	.7	2.3	29.4	38.5	21.3	7.1	.8	17.1	100.0	875	
06009	.6	.9	24.2	37.7	24.8	7.4	.3	17.7	100.0	632	
12015	1.4	2.7	30.0	37.9	20.1	7.0	1.0	16.8	100.0	791	
18021	1.2	3.1	29.3	37.7	24.5	6.5	.7	17.3	100.0	604	
TOT	28	60	831	1100	850	203	21	17.2		2902	
PCT	1.0	2.3	28.6	38.0	27.4	7.0	.7		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.9	1.8	5.3	4.9		5.5
NE	2.6	2.0	3.4	1.8		4.6
E	1.3	1.0	2.0	1.8		5.2
SE	.5	1.0	2.7	.7		5.3
S	.7	2.0	3.7	1.7		5.2
SW	1.9	4.9	6.6	2.5		4.9
W	2.3	5.2	10.6	4.4		5.4
NW	2.0	3.3	8.1	4.4		5.5
VAR	.0	.0	.0	.0		.0
CALM	.2	.1	.4	.1		5.0
TOT OBS	179	265	526	272	1242	5.2
TOT PCT	14.4	21.3	42.4	21.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.4	1.1	2.8	1.4	.3	.1	.0	.3	8.4	
NE	.1	.0	.6	1.4	.8	.3	.2	.0	.0	.2	6.1	
E	.0	.0	.2	.7	1.1	.6	.2	.1	.0	.0	3.2	
SE	.0	.0	.0	.4	1.3	.8	.2	.0	.0	.0	2.2	
S	.0	.0	.1	.4	1.6	1.2	.4	.2	.0	.0	3.2	
SW	.0	.1	.1	1.8	3.2	2.0	.4	.0	.0	.1	8.1	
W	.1	.0	.4	3.2	6.6	2.0	.6	.4	.1	.1	9.4	
NW	.1	.1	.2	2.6	4.3	1.4	.6	.4	.1	.1	7.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.3	
TOT OBS	3	2	17	134	279	132	38	18	2	9	608	1242
TOT PCT	.2	.2	1.4	10.8	22.5	10.6	3.1	1.4	.2	.7	49.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				VSBY (NM)				VSBY (NM)			
	>10	>5	>2	>1	>1/2	>1/4	>30YD	>0	>10	>5	>2	>1
>6500	.7	.9	.9	.9	.9	.9	.9	.9	.7	.9	.9	.9
>4000	1.6	2.2	2.3	2.3	2.3	2.3	2.3	2.3	1.6	2.2	2.3	2.3
>3500	3.9	5.3	5.4	5.4	5.4	5.4	5.4	5.4	3.9	5.3	5.4	5.4
>3000	12.7	15.3	16.0	16.0	16.0	16.0	16.0	16.0	12.7	15.3	16.0	16.0
>2500	29.4	36.9	38.1	38.1	38.1	38.1	38.1	38.1	29.4	36.9	38.1	38.1
>2000	35.1	46.4	48.6	48.6	48.6	48.6	48.6	48.6	35.1	46.4	48.6	48.6
>1500	35.6	47.4	49.8	50.1	50.2	50.2	50.2	50.2	35.6	47.4	49.8	50.1
>1000	35.6	47.6	50.0	50.2	50.3	50.3	50.3	50.3	35.6	47.6	50.0	50.2
>500	35.7	47.6	50.2	50.4	50.5	50.6	50.6	50.6	35.7	47.6	50.2	50.4
TOTAL	454	606	638	641	642	643	644	644	454	606	638	641

TOTAL NUMBER OF OBS: 1272

PCT FREQ NH &lt;5/8 49.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	4.3	9.1	9.8	13.4	11.7	10.5	12.8	11.2	17.0	1379

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1869-1969

JUNE

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	*	.1	.0	.0	.1	
	NO PCP	*	.0	.0	.0	.0	.0	*	.0	.0	.0	.1	
	TOT %	*	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
1<2	PCP	.2	.0	.0	.0	.0	.0	*	.2	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.0	*	.1	.0	.0	.1	
	TOT %	.2	.0	.0	.0	.0	.0	.1	.2	.0	.0	.5	
2<5	PCP	.3	*	.1	.1	.1	.3	.4	.4	.0	.0	1.7	
	NO PCP	.1	.1	.0	.0	.1	.1	.2	.5	.0	.0	1.0	
	TOT %	.4	.1	.1	.1	.2	.3	.6	.8	.0	.0	2.7	
5<10	PCP	1.3	.5	.4	.3	.8	2.6	3.3	3.3	.0	*	12.5	
	NO PCP	2.7	2.0	1.8	1.3	1.7	4.3	5.8	4.3	.0	*	24.0	
	TOT %	4.0	2.5	2.2	1.6	2.5	6.9	9.1	7.6	.0	.1	36.5	
10+	PCP	.7	.3	.1	.3	.4	.4	1.1	.7	.0	.0	4.0	
	NO PCP	9.0	6.9	4.1	2.9	4.3	8.2	11.2	8.6	.0	.7	55.9	
	TOT %	9.7	7.2	4.2	3.2	4.7	8.7	12.3	9.3	.0	.7	59.9	
TOT OBS													
TOT PCT													
		14.3	9.8	6.5	4.9	7.3	15.9	22.3	18.1	.0	.8	100.0	2074

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.3	
	TOT %	*	.0	.0	.0	.0	.0	.1	.2	.0	.0	.3	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
	4-10	.0	.0	.0	.0	.0	.0	*	*	.0	.0	*	
	11-21	.0	.0	.0	.0	.0	.0	*	.1	.0	.0	.2	
	22+	.2	.0	.0	.0	.0	.0	*	.1	.0	.0	.4	
	TOT %	.2	.0	.0	.0	.0	.0	.1	.3	.0	.0	.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	*	.1	*	*	.1	.1	*	.1	.0	.0	.5	
	11-21	*	.0	*	*	*	*	.3	.3	.0	.0	.8	
	22+	.3	*	*	*	*	.4	.3	.5	.0	.0	1.6	
	TOT %	.4	.1	.1	.1	.2	.5	.6	.9	.0	.0	2.9	
5<10	0-3	.1	.0	.1	*	*	.1	.2	.1	.0	.1	.8	
	4-10	1.1	1.3	.6	.6	.6	1.2	1.1	1.3	.0	.0	7.8	
	11-21	1.3	.7	1.1	.4	1.0	2.7	3.1	2.5	.0	.0	12.9	
	22+	1.3	.3	.2	.5	.7	2.7	4.4	3.4	.0	.0	13.5	
	TOT %	3.8	2.4	2.0	1.8	2.4	6.7	8.8	7.4	.0	.1	35.0	
10+	0-3	.1	.3	.2	.1	.2	.2	.3	.1	.0	.7	2.1	
	4-10	3.4	2.8	2.1	1.6	1.9	2.3	2.3	1.9	.0	.0	18.6	
	11-21	4.4	3.5	1.7	1.2	2.2	4.2	4.1	3.4	.0	.0	24.7	
	22+	1.8	.6	.1	.2	.7	2.6	5.7	3.9	.0	.0	15.7	
	TOT %	9.7	7.2	4.2	3.1	5.0	9.4	12.5	9.3	.0	.7	61.1	
TOT OBS													
TOT PCT													
		14.1	9.6	6.3	4.8	7.6	16.6	22.2	18.0	.0	.8	100.0	2221

JUNE

PERIOD: (PRIMARY) 1917-1969  
(OVER-ALL) 1869-1969

TABLE 10

AREA 0017 CAPE LEEUWIN  
33.95 114.6EPERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOURL (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.3	.3	1.5	12.3	21.1	12.6	4.1	1.5	.0	1.2	54.7	45.3	342
06009	.0	.0	2.1	11.2	21.2	10.6	2.9	2.4	.0	.3	50.8	49.4	340
12015	.3	.3	.9	9.5	23.7	6.9	2.8	1.6	.6	.6	47.3	52.7	317
18021	.3	.0	.6	8.3	20.5	10.6	2.2	.0	.0	.6	43.3	56.7	312
TOT	3	2	17	136	283	134	40	18	2	9	644	667	1311
PCT	.2	.2	1.3	10.4	21.6	10.2	3.1	1.4	.2	.7	49.1	50.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.5	2.9	36.7	60.0	630
06009	.2	.0	.4	3.1	31.5	64.8	508
12015	.2	.5	1.3	3.2	38.3	56.7	630
18021	.0	.8	.2	2.2	31.8	65.0	503
TOT	2	7	14	65	792	1391	2771
PCT	.1	.3	.6	2.9	34.9	61.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.3	2.1	16.1	40.0	43.9	335
06009	.0	2.4	16.1	37.0	47.0	330
12015	.3	1.6	13.4	35.9	50.7	306
18021	.3	1.3	11.0	34.2	54.8	301
TOT	3	24	181	469	622	1272
PCT	.2	1.9	14.2	36.9	48.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.1	.1	.1	.3	.4	.3	.2	.2	28	1.7
65/69	.0	.1	.4	.9	2.5	4.7	3.4	1.7	221	13.6
60/64	.0	.0	.2	3.7	13.3	14.4	10.5	4.9	767	47.1
55/59	.0	.0	.1	1.8	6.9	12.5	8.5	3.6	546	33.5
50/54	.0	.0	.0	.1	.6	.7	1.5	1.0	63	3.9
45/49	.0	.0	.0	.0	.0	.0	.1	.1	3	.2
TOTAL	1	2	12	113	384	531	396	188	1628	100.0
PCT	.1	.1	.7	6.9	23.6	32.6	24.3	11.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.7	.5	.0	.1	.1	*	.1	.3	.0	.0
4.3	1.8	.3	.2	.4	.3	2.0	4.0	.0	.2
7.0	4.8	2.5	2.0	2.2	6.2	12.5	9.3	.0	.4
2.4	2.9	2.4	2.2	3.7	8.0	7.8	3.9	.0	.3
.5	.4	.3	*	1.0	1.1	.4	.2	.0	.0
.0	.0	.1	.0	.0	.1	.0	.0	.0	.0
14.9	10.4	5.6	4.6	7.4	15.7	22.8	17.7	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	70	69	67	60	54	51	48	60.5	864
06009	72	70	68	62	55	52	50	61.6	627
12015	73	69	67	61	55	52	49	60.8	803
18021	71	69	66	60	54	52	49	60.1	612
TOT	73	70	67	61	55	52	48	60.7	2906

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	5.3	20.8	32.9	28.7	12.4	77	453
06009	.3	12.4	27.1	32.2	16.5	11.6	73	388
12015	.0	8.1	25.8	30.3	24.7	11.2	75	446
18021	.0	5.8	21.5	35.6	26.7	10.5	76	382
TOT	1	130	396	545	406	191	75	1669

JUNE

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1869-1969

TABLE 17

AREA 0017 CAPE LEEUWIN  
33.95 114.6EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.1	.0	2	.0	.1
9/10	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
7/8	.0	.0	.0	.1	.0	.0	.1	3	.0	.2
6	.0	.0	.0	.1	.2	.1	.0	6	.0	.3
5	.0	.0	.1	.1	.3	.1	.0	11	.0	.6
4	.0	.1	.0	.2	.3	.1	.0	12	.0	.7
3	.0	.0	.3	.2	.0	.3	.0	25	.0	1.4
2	.0	.0	.0	.9	.8	.3	.0	36	.1	2.0
1	.0	.0	.6	1.4	1.1	.4	.0	62	.0	3.4
0	.0	.2	.8	2.0	1.8	.4	.0	95	.0	5.3
-1	.0	.1	1.4	2.8	1.7	.4	.0	116	.0	6.4
-2	.1	.2	1.5	3.9	2.0	.1	.0	142	.1	7.8
-3	.0	.2	2.0	4.9	1.9	.1	.0	165	.0	9.1
-4	.0	.3	4.1	4.9	.8	.0	.0	181	.0	10.0
-5	.1	.6	3.8	5.9	.8	.0	.0	200	.1	11.0
-6	.0	.9	4.6	3.0	.4	.0	.0	162	.0	9.0
-7/-8	.0	2.1	7.4	4.8	.3	.0	.0	300	.0	16.6
-9/-10	.2	3.0	5.0	.9	.1	.0	.0	167	.0	9.2
-11/-13	.4	2.6	2.2	.3	.0	.0	.0	100	.0	5.5
-14/-16	.2	.5	.2	.1	.0	.0	.0	18	.0	1.0
-17/-19	.1	.1	.0	.0	.0	.0	.0	2	.0	.1
TOTAL	19	195	649	660	238	44	1	1806	4	1802
PCT	1.1	10.8	35.9	36.5	13.2	2.4	.1	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.5	.0	.0	.0	.0	.6	.3	.1	.0	.0	.0	.0	.4
1-2	.0	2.1	.9	.0	.0	.0	2.9	.0	2.0	.4	.0	.0	.0	2.4
3-4	.0	1.6	2.9	.5	.0	.0	4.9	.0	1.4	1.2	.1	.0	.0	2.6
5-6	.0	.5	2.6	1.2	.0	.0	4.3	.0	.0	1.0	.3	.0	.0	1.3
7	.0	.0	.6	1.0	.0	.0	1.6	.0	.0	.3	.0	.0	.0	.4
8-9	.0	.0	.0	.5	.0	.0	.5	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.0	.1	.1	.0	.2	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.6	.0	.0	.6	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	4.6	7.0	3.9	.1	.0	15.8	.3	3.5	2.9	.7	.1	.0	7.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.0	.8	.0	.0	.0	2.8	.0	1.1	.0	.0	.0	.0	1.1
3-4	.0	.8	.8	.0	.0	.0	1.6	.0	.1	2.0	.0	.0	.0	2.0
5-6	.0	.4	.2	.1	.0	.0	.8	.0	.0	.4	.3	.0	.0	.8
7	.0	.0	.2	.1	.0	.0	.4	.0	.1	.3	.0	.0	.0	.5
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.4	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.5	2.0	.8	.0	.0	6.3	.0	1.4	2.9	.4	.4	.0	5.1



PERIOD: (OVER-ALL) 1963-1969

JUNE  
TABLE 18 (CONT)

AREA 0017 CAPE LEEUWIN  
33.95 114.65

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.1	.1	.0	.0	.0	.0	.2	.0	.5	.0	.0	.0	.0	.5	
1-2	.0	.9	.2	.0	.0	.0	1.1	.1	1.6	.1	.0	.0	.0	1.8	
3-4	.0	.9	1.7	.0	.0	.0	2.6	.0	.8	1.9	.4	.0	.0	3.1	
5-6	.0	.0	1.5	.2	.0	.0	1.7	.0	.1	2.1	.5	*	.0	2.7	
7	.0	.0	.1	.1	.0	.0	.3	.0	.0	1.5	1.4	.4	.0	3.4	
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.6	.6	.4	.0	1.6	
10-11	.0	.0	.1	.1	.0	.0	.2	.0	.0	*	.2	.2	.0	.4	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	*	*	.3	
13-16	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.3	.3	.0	.6	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.4	.0	.7	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.1	1.9	3.6	.7	.0	.0	6.4	.1	3.0	6.4	3.6	2.0	.3	15.5	

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.1	.2	.0	.0	.0	.0	.3	.0	.2	.0	.0	.0	.0	.2		
1-2	.1	.9	.5	.0	.0	.0	1.5	*	1.4	.5	.0	.0	.0	1.9		
3-4	.0	1.5	1.3	.1	.0	.0	3.0	.0	1.2	1.6	1.4	.0	.0	4.3		
5-6	.0	.1	2.3	1.5	.6	.0	4.6	.0	.2	2.3	1.4	*	.0	3.9		
7	.0	.0	1.9	2.7	.4	.0	5.0	.0	.0	.5	1.8	.0	.0	2.3		
8-9	.0	.0	.3	1.7	.2	.0	2.2	.0	.0	.1	1.4	.5	.0	2.0		
10-11	.0	.0	.0	1.7	.5	.0	2.2	.0	.0	.1	1.4	.7	.0	2.2		
12	.0	.0	.0	.2	1.1	.2	2.6	.0	.0	.0	.5	.4	.0	.8		
13-16	.0	.0	.0	.9	.2	.2	1.4	.0	.0	.0	.1	.3	*	.5		
17-19	.0	.0	.0	.3	.5	.0	.8	.0	.0	.0	.3	.5	.0	.7		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1		
23-25	.0	.0	.0	.0	.3	.1	.4	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.2	2.7	6.3	10.1	3.8	.6	23.8	*	3.0	5.2	8.3	2.4	.2	19.1	99.4	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.4	2.1	.0	.0	.0	.0	3.4	
1-2	.7	11.8	3.3	.0	.0	.0	15.8	
3-4	.0	8.3	13.2	2.5	.0	.0	24.0	
5-6	.0	1.4	12.4	5.4	.7	.0	19.8	
7	.0	.1	5.5	7.2	.8	.0	13.6	
8-9	.0	.0	1.1	4.5	1.1	.0	6.7	
10-11	.0	.0	.3	3.7	1.5	.0	5.5	
12	.0	.0	.1	2.1	1.5	.3	4.0	
13-16	.0	.0	.0	2.2	1.4	.3	3.9	
17-19	.0	.0	.1	.7	1.4	.0	2.2	
20-22	.0	.0	.0	.0	.1	.3	.4	
23-25	.0	.0	.0	.0	.3	.1	.4	
26-32	.0	.0	.0	.0	.0	.1	.1	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.1	23.7	36.1	28.2	8.8	1.1	100.0	726

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<5	.5	3.4	4.3	1.9	1.4	1.0	1.1	.3	.4	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	151	5
5-7	.0	.2	2.2	5.3	4.3	2.3	2.8	2.0	1.7	.3	.2	.1	.1	.0	.0	.0	.0	.0	.0	224	8
8-9	.0	.0	1.1	3.2	2.8	3.5	4.2	2.0	3.6	1.0	.6	.5	.4	.0	.0	.0	.0	.0	.0	238	10
10-11	.0	.2	.7	1.3	2.7	2.0	2.7	2.5	2.2	1.5	.8	.9	.3	.0	.0	.0	.0	.0	.0	185	11
12-13	.0	.0	.1	.0	.7	1.6	1.1	1.1	2.3	.3	.3	.2	.5	.1	.0	.0	.0	.0	.0	84	13
>13	.0	.0	.0	.3	.3	.4	.5	.5	1.1	.4	.2	.5	.9	.2	.0	.0	.0	.0	.0	54	17
INDFT	.4	.6	1.1	2.3	1.4	1.5	1.5	.4	.7	.2	.0	.0	.1	.0	.0	.0	.0	.0	.0	105	7
TOTAL	9	46	98	149	142	129	144	92	126	40	21	22	23	3	0	0	0	0	0	1044	9
PCT	.9	4.4	9.4	14.3	13.6	12.4	13.8	8.8	12.1	3.8	2.0	2.1	2.2	.3	.0	.0	.0	.0	.0	100.0	

JULY

PERIOD: (PRIMARY) 1911-1970  
(OVER-ALL) 1857-1970AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
N	9.8	4.1	1.4	.0	.0	.0	.5	15.7	2.8	2.2	.0	.0	.0	.0
NE	4.9	2.6	1.6	.0	.0	.0	.0	9.1	.8	.8	1.6	.0	.0	.0
E	2.5	3.2	.0	.0	.0	.0	.0	5.7	.9	.0	2.5	.0	.0	.0
SE	.0	3.7	.0	.0	.0	.0	.0	3.7	4.3	.0	1.3	.0	.0	.0
S	2.3	10.6	2.0	.0	.0	.0	.0	14.9	1.6	.3	.0	.0	.6	.0
SW	4.6	13.5	1.0	.0	.0	.0	.3	19.3	5.2	1.7	1.4	.0	.0	.0
W	5.0	15.2	1.4	.0	.0	.0	.3	21.8	7.1	1.3	.9	.0	.2	.0
NW	9.2	8.7	1.3	.0	.0	.0	1.0	20.2	7.9	2.9	1.1	.0	.3	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	16.7	.0	.0	.0	.0	16.7	.0	.0	.0	.0	.0	.0
TOT PCT	5.6	10.4	1.3	.0	.0	.0	.4	17.6	5.2	1.5	1.0	.0	.2	.0
TOT OBS: 1926														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
0000	4.6	11.5	1.9	.0	.0	.0	.7	18.8	5.1	.5	1.1	.0	.4	.0
0600	6.2	9.9	1.1	.0	.0	.0	.2	17.3	7.7	.2	.4	.0	.0	.0
1200	5.8	11.4	.8	.0	.0	.0	.2	18.1	2.9	2.7	2.1	.0	.2	.0
1800	5.7	8.7	1.2	.0	.0	.0	.2	15.6	5.2	2.6	.7	.0	.0	.0
TOT PCT	5.5	10.5	1.3	.0	.0	.0	.4	17.6	5.2	1.5	1.1	.0	.2	.0
TOT OBS: 1974														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	.3	3.3	4.0	2.1	.6	.0		10.2	15.7	12.4	13.5	10.1	9.8	8.2	11.6	6.9	8.9
NE	.3	3.0	3.0	.7	.1	.0		7.0	13.1	6.3	8.7	5.0	7.2	6.3	8.0	7.5	9.3
E	.3	2.4	1.8	.2	.0	.0		4.8	10.6	4.6	4.3	6.2	3.5	4.9	5.0	4.6	4.8
SE	.3	2.5	1.1	.3	.1	.1		4.3	11.5	4.5	3.0	4.2	4.2	4.2	7.5	3.5	4.3
S	.3	2.7	3.3	1.6	.4	.2		8.5	16.1	8.2	9.1	8.1	10.2	8.9	8.3	7.5	8.5
SW	.3	4.6	7.2	4.9	1.8	.2		19.0	18.7	18.1	19.7	18.6	21.1	19.9	18.9	17.7	18.1
W	.4	4.9	4.4	9.3	3.1	.6		27.7	21.4	28.0	25.2	28.8	25.6	30.2	22.9	29.7	25.4
NW	.4	3.7	6.1	5.8	1.6	.2		17.7	19.6	17.7	16.1	18.8	16.6	16.4	16.0	21.5	18.8
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.8							.8	.0	.2	.3	.3	.3	.3	.9	1.9	1.0
TOT OBS	93	749	994	687	213	34	2770		17.9	555	290	382	242	531	212	310	248
TOT PCT	3.4	27.0	35.9	24.8	7.7	1.2		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	1.5	4.5	3.0	1.1	.1			10.2	15.7	12.9	10.0	9.2
NE	1.0	3.9	1.6	.4	.1			7.0	13.1	7.1	5.8	6.8
E	1.3	2.7	.7	.1	.0			4.8	10.6	4.5	5.1	4.9
SE	1.3	2.3	.6	.1	.1			4.3	11.5	4.0	4.2	5.2
S	1.4	3.6	2.5	.6	.3			8.5	16.1	8.5	8.9	8.7
SW	2.1	6.5	6.1	3.8	.5			19.0	18.7	18.6	19.6	17.9
W	2.3	7.2	9.9	6.8	1.5			27.7	21.4	27.0	27.6	28.1
NW	1.9	5.6	6.0	3.6	.6			17.7	19.6	17.1	17.9	16.3
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0
CALM	.8							.8	.0	.2	.8	1.2
TOT OBS	376	1004	841	441	88	2770		17.9		845	624	743
TOT PCT	13.6	36.2	30.4	16.6	3.2		100.0		100.0	100.0	100.0	100.0

JULY

PERIOD: (PRIMARY) 1911-1970  
(OVER-ALL) 1857-1970AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOURL	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT	TOTAL
				11-21	22-33	34-47			FREQ	OBS
0700	.2	1.8	27.0	35.7	25.1	8.5	1.7	18.4	100.0	845
0800	.8	2.4	25.8	35.9	27.1	6.7	1.3	18.1	100.0	624
1215	1.2	3.9	28.1	34.2	24.0	7.4	1.2	17.4	100.0	743
1821	.9	2.3	27.1	38.4	22.9	7.9	.5	17.4	100.0	558
TOT	21	72	749	994	687	213	34	17.9		2770
PCT	.8	2.6	27.0	35.9	24.8	7.7	1.2	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL	MEAN CLOUD COVER
N	1.5	1.1	3.7	2.4		5.4
NE	1.9	1.0	1.1	1.4		4.3
E	1.1	1.7	1.5	.5		4.2
SE	.4	.9	1.7	.7		5.3
S	1.4	1.6	4.2	.6		4.9
SW	2.6	4.2	9.0	2.1		5.0
W	3.0	5.6	16.5	4.4		5.4
NW	3.0	3.7	8.9	4.0		5.4
VAR	.0	.0	.0	.0		.0
CALM	.3	.0	.1	.1		3.4
TOT OBS	165	226	505	186	1082	5.2
TOT PCT	19.2	20.9	46.7	17.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.1	.0	.1	.8	1.7	1.3	.3	.2	.0	.0	4.1	
NE	.0	.0	.0	.0	.6	.6	.0	.0	.0	.0	3.6	
E	.0	.0	.0	.1	.7	.4	.1	.0	.0	.0	3.4	
SE	.0	.0	.1	.1	.5	.6	.0	.0	.0	.0	1.8	
S	.0	.0	.1	.6	1.6	.8	1.0	.0	.0	.0	3.7	
SW	.0	.0	.1	2.5	3.9	1.0	1.5	.4	.0	.0	8.5	
W	.0	.1	.5	3.9	6.9	3.6	1.6	.4	.0	.2	13.4	
NW	.1	.2	.1	2.3	3.7	2.6	1.7	.3	.0	.0	9.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.3	
TOT OBS	2	3	11	111	212	119	82	14	0	4	524	1082
TOT PCT	.2	.3	1.0	10.3	19.6	11.0	7.6	1.3	.0	.4	46.4	100.0

TABLE 7

CUMULATIVE PCT FREQ (IF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM))

CEILING (FEET)	OR >10	OR >5	OR >2	VSBY (NM)				OR >0
				OR >1	OR >1/2	OR >1/4	OR >50YD	
OR >4500	.4	.4	.4	.4	.4	.4	.4	.4
OR >4000	1.3	1.5	1.6	1.6	1.6	1.6	1.6	1.6
OR >3500	7.1	8.8	9.0	9.2	9.2	9.2	9.2	9.2
OR >3000	16.2	19.4	20.1	20.2	20.2	20.2	20.2	20.2
OR >2500	31.5	37.6	39.2	39.6	39.7	39.7	39.7	39.7
OR >2000	38.1	46.7	49.2	49.8	49.9	49.9	49.9	49.9
OR >1500	38.5	47.3	50.0	50.7	50.8	50.8	50.9	50.9
OR >1000	38.5	47.5	50.3	51.0	51.0	51.0	51.1	51.1
OR >500	38.5	47.5	50.4	51.0	51.2	51.2	51.3	51.3
TOTAL	422	521	553	560	562	562	563	563

TOTAL NUMBER OF OBS: 1097

PCT FREQ NH &lt;5/8: 46.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL
											OBS
	4.0	7.4	11.1	13.1	12.3	10.9	13.8	13.9	13.5	.0	1224

PERIOD: (PRIMARY) 1911-1970  
(OVER-ALL) 1857-1970

JULY

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2
	TOT %	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2
1/2<1	PCP	.1	.1	.1	*	*	.1	.3	.2	.0	.0	.0	.8
	NO PCP	.1	.1	.1	.1	.0	.1	.1	.1	.0	.0	.0	.4
	TOT %	.1	.2	.1	.1	*	.2	.3	.3	.0	.0	.0	1.2
1<2	PCP	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.3
	NO PCP	.0	.0	.0	.0	.1	*	*	.2	.0	.0	.0	.3
	TOT %	.0	.0	.0	.0	.1	*	.1	.3	.0	.0	.0	.5
2<5	PCP	.2	*	.0	.0	.0	.2	.6	.6	.0	.0	.0	1.6
	NO PCP	.0	.0	.0	.1	.1	.3	.3	.3	.0	.0	.0	1.0
	TOT %	.2	*	.0	.1	.1	.5	.9	.9	.0	.0	.0	2.6
5<10	PCP	.7	.5	.1	.1	1.0	2.3	3.8	1.9	.0	.1	10.4	
	NO PCP	2.8	2.4	.9	.9	2.7	4.9	7.7	4.8	.0	.1	27.0	
	TOT %	3.5	2.9	.9	1.0	3.7	7.2	11.5	6.7	.0	.1	37.4	
10+	PCP	.5	*	.1	*	.4	1.0	1.7	.8	.0	.0	4.6	
	NO PCP	5.2	3.5	3.0	2.7	4.9	9.7	14.9	9.5	.0	.2	53.6	
	TOT %	5.8	3.5	3.1	2.8	5.2	10.7	16.6	10.3	.0	.2	58.1	
TOT OBS													1925
TOT PCT													9.6 6.6 4.1 3.9 9.1 18.5 29.4 18.5 .0 .3 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.1	*	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.0	.0	.1	*	.0	.0	.1	.1
1/2<1	0-3	.0	*	*	*	.0	.0	.0	*	.0	.0	.2	.2
	4-10	.0	.0	.0	*	*	.0	.0	*	.0	.0	.1	.1
	11-21	.0	*	*	.0	.0	*	.1	*	.0	.0	.3	.3
	22+	.1	*	.0	.0	.0	.1	.2	.1	.0	.0	.5	.5
	TOT %	.1	.1	.1	.1	*	.1	.3	.2	.0	.0	1.1	1.1
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	.0
	11-21	*	*	.0	*	.1	.0	*	.1	.0	.0	.3	.3
	22+	.0	.0	.0	.0	.0	.0	*	.2	.0	.0	.2	.2
	TOT %	*	*	.0	*	.1	*	.1	.3	.0	.0	.6	.6
2<5	0-3	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.0
	4-10	.1	*	.0	.0	.0	.1	*	*	.0	.0	.3	.3
	11-21	.1	*	.0	*	.0	*	.2	.2	.0	.0	.5	.5
	22+	.2	.0	.0	*	.1	.4	.6	.6	.0	.0	1.8	1.8
	TOT %	.4	.1	.0	.1	.1	.5	.8	.8	.0	.0	2.6	2.6
5<10	0-3	.1	.2	.2	.2	.1	.1	.3	.2	.0	.1	1.4	1.4
	4-10	.8	1.1	.4	.4	.4	1.3	1.3	.7	.0	.0	6.8	6.8
	11-21	1.4	.9	.2	.2	1.5	2.4	3.2	2.0	.0	.0	11.9	11.9
	22+	1.0	.4	*	*	.9	2.8	6.5	3.7	.0	.0	15.4	15.4
	TOT %	3.3	2.6	.9	.9	3.3	6.6	11.3	6.5	.0	.1	35.5	35.5
10+	0-3	.1	.1	.1	.2	.2	.3	.2	.1	.0	.4	1.6	1.6
	4-10	1.9	1.3	1.2	1.5	2.0	3.2	3.3	2.5	.0	.0	17.1	17.1
	11-21	2.5	2.1	1.6	.8	2.1	4.8	6.8	4.1	.0	.0	24.7	24.7
	22+	1.3	.2	.2	.3	1.0	3.3	6.6	3.9	.0	.0	16.7	16.7
	TOT %	5.8	3.8	3.0	2.8	5.3	11.5	16.9	10.6	.0	.4	60.1	60.1
TOT OBS													2134
TOT PCT													9.6 6.6 4.0 3.8 8.8 18.6 29.5 18.5 .0 .5 100.0

JULY

PERIOD: (PRIMARY) 1911-1970  
(OVER-ALL) 1857-1970AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.3	1.6	11.4	21.8	10.1	6.5	2.3	.0	.3	54.2	45.8	308
06009	.3	.3	1.0	10.3	20.2	13.9	7.3	.7	.0	.0	54.0	46.0	302
12015	.0	.4	.7	9.4	13.0	9.8	7.2	1.4	.0	.7	42.8	57.2	276
18021	.4	.0	.4	7.6	18.6	8.0	8.0	.4	.0	.4	43.7	56.3	263
TOT	2	3	11	112	213	171	83	14	0	4	563	586	1149
PCT	.2	.3	1.0	9.7	18.5	10.5	7.2	1.2	.0	.3	49.0	51.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	1.3	.8	2.5	37.4	57.8	628
06009	.4	1.4	.4	3.0	31.5	63.4	508
12015	.0	1.0	.5	2.4	39.7	56.3	584
18021	.0	.9	.4	2.4	33.7	62.6	463
TOT	3	25	12	56	783	1304	2183
PCT	.1	1.1	.5	2.6	35.9	59.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	2.4	16.7	40.5	42.9	294
06009	.3	1.7	15.6	40.1	44.2	294
12015	.0	1.2	13.7	32.8	53.5	256
18021	.4	.8	10.3	36.0	53.8	253
TOT	2	17	156	412	529	1097
PCT	.2	1.5	14.2	37.5	48.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.0	.0	.1	.0	2	.1
70/74	.0	.0	.0	.1	.1	.3	.1	.1	10	.7
65/69	.0	.0	.1	.4	.9	1.7	1.4	.4	69	5.0
60/64	.0	.0	.1	3.1	12.9	12.9	8.5	2.9	560	40.5
55/59	.0	.0	.1	3.0	11.6	17.1	11.1	3.4	643	46.5
50/54	.0	.0	.0	.7	.9	2.5	2.2	.8	100	7.2
TOTAL	0	0	5	103	366	479	327	104	1384	100.0
PCT	.0	.0	.4	7.4	26.4	34.6	23.6	7.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.0	.0	.0	.0	.0	.1	*	.0	.0
.3	.1	.0	*	.1	*	.1	.1	.0	.0
1.6	.4	.3	*	.1	.2	.8	1.6	.0	.0
4.6	2.9	1.4	.9	2.2	5.5	11.4	11.3	.0	.3
2.7	2.1	2.2	2.4	3.5	11.5	16.0	6.0	.0	.1
.3	.1	.3	.2	1.0	2.3	2.4	.5	.0	.0
9.5	5.6	4.2	3.6	7.0	19.4	30.8	19.6	.0	.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	74	67	64	59	53	51	49	58.6	841
06009	73	68	66	60	54	52	50	59.9	676
12015	75	68	64	59	54	52	50	59.0	745
18021	73	67	64	58	53	51	49	58.3	561
TOT	75	68	65	59	53	51	49	58.9	2773

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	8.1	22.5	37.7	24.1	7.6	75	395		
06009	.0	13.0	31.5	30.1	19.7	5.8	72	346		
12015	.0	6.4	25.3	32.9	27.0	8.4	75	359		
18021	.0	4.5	27.6	37.7	22.4	7.8	75	308		
TOT	0	114	374	487	329	104	74	1408		



JULY

PERIOD: (PRIMARY) 1911-1970  
(OVER-ALL) 1857-1970

TABLE 17

AREA 0017 CAPE LEEUWIN  
33.95 114.6FPCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.0	.0	.1	.1	1	.0	.1
7/8	.0	.0	.0	.0	.1	.0	.0	2	.0	.1
6	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
5	.0	.0	.1	.1	.1	.1	.1	7	.0	.4
4	.0	.0	.4	.2	.2	.1	.1	17	.0	1.0
3	.0	.1	.1	.4	.3	.0	.1	15	.0	.9
2	.0	.0	.4	.3	.4	.1	.0	18	.0	1.1
1	.0	.0	.9	1.0	.6	.0	.0	42	.0	2.5
0	.0	.2	1.5	2.5	.6	.1	.1	84	.1	4.8
-1	.0	.4	2.6	4.0	.9	.0	.0	134	.2	7.6
-2	.0	.8	3.1	3.8	.7	.1	.0	144	.1	8.4
-3	.0	.9	4.2	3.3	.9	.0	.0	159	.2	9.2
-4	.1	1.3	4.9	3.8	.2	.0	.0	175	.2	10.1
-5	.2	1.6	6.7	3.1	.2	.0	.0	200	.1	11.6
-6	.1	1.9	6.1	2.6	.0	.0	.0	183	.1	10.6
-7/-8	.2	4.3	9.2	1.4	.1	.0	.0	259	.0	15.2
-9/-10	.5	5.1	4.2	.4	.0	.0	.0	173	.0	10.2
-11/-13	.5	2.3	1.3	.0	.0	.0	.0	69	.0	4.1
-14/-16	.4	.5	.1	.0	.0	.0	.0	16	.0	.9
-17/-19	.2	.0	.0	.0	.0	.0	.0	3	.0	.2
TOTAL	36	331	456	89	8	7	1702	17	1685	
PCT	2.1	19.4	45.5	26.8	5.2	.5	.4	100.0	1.0	99.0

PERIOD: (OVER-ALL) 1963-1970

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.4	.0	.0	.0	.0	.4	.2	.2	.0	.0	.0	.0	.4
1-2	.0	1.0	.3	.0	.0	.0	1.2	.0	.5	.0	.0	.0	.0	.5
3-4	.0	.8	1.3	.4	.0	.0	2.5	.0	.3	.6	.0	.0	.0	.8
5-6	.0	.2	.8	.6	.7	.0	2.3	.0	.2	1.1	.0	.0	.0	1.3
7	.0	.0	.6	.9	.0	.0	1.5	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.5	.1	.0	.6	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.3	3.0	2.4	.8	.0	8.5	.2	1.1	1.9	.0	.0	.0	3.2

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.3	.0	.0	.0	.0	.3	.2	.4	.0	.0	.0	.0	.4
1-2	.0	.7	.2	.0	.0	.0	.9	.2	.4	.0	.0	.0	.0	.5
3-4	.0	.8	.3	.0	.0	.0	1.1	.0	.5	.6	.0	.0	.0	1.1
5-6	.0	.0	.4	.0	.2	.0	.5	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.3	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.9	.8	.0	.2	.0	2.8	.2	1.2	.9	.3	.0	.0	2.7

PERIOD: (OVER-ALL) 1963-1970

JULY

AREA 0017 CAPE LEFUVIN  
33.95 114.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.5	.0	.0	.0	.0	.0		.5	.2	.3	.0	.0	.0	.0		.5
1-2	.0	1.5	.2	.0	.0	.0		1.6	.2	3.2	.7	.0	.0	.0		4.0
3-4	.0	1.5	.3	.0	.0	.0		1.8	.2	2.1	2.2	.2	.0	.0		4.5
5-6	.0	.0	1.1	.1	.0	.0		1.5	.0	.5	2.6	1.1	.0	.0		4.2
7	.0	.0	.9	.6	.0	.0		1.5	.0	.0	.3	.8	.4	.0		1.5
8-9	.0	.0	.0	.2	.0	.0		.2	.0	.0	.2	.7	.2	.0		1.1
10-11	.0	.0	.2	.0	.0	.0		.2	.0	.0	.4	.6	.2	.2		1.3
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.4	.0	.0		.4
13-16	.0	.0	.2	.0	.0	.0		.2	.0	.2	.2	.7	.2	.0		1.2
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.2	.2	.0	.0		.3
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.2	.1	.1	.0		.4
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.2	.0	.0	.0		.2
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.5	3.1	2.9	.9	.0	.0		7.4	.4	6.2	6.9	4.6	1.1	.2		19.4

HGT	W							PCT	NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.1	.6	.0	.0	.0	.0		.8	.2	.2	.0	.0	.0	.0		.4
1-2	.2	1.1	1.2	.0	.0	.0		2.4	.0	1.1	.5	.0	.0	.0		1.6
3-4	.0	2.4	2.4	.4	.0	.0		5.2	.0	1.2	2.3	.7	.0	.0		4.2
5-6	.0	.3	3.8	1.6	.3	.0		6.1	.0	.4	1.7	2.3	.0	.0		4.4
7	.0	.2	1.3	4.5	.5	.0		6.4	.0	.2	1.2	1.2	.2	.0		2.8
8-9	.0	.2	.4	1.9	.4	.0		3.0	.0	.0	.1	2.6	1.0	.0		3.7
10-11	.0	.0	.1	2.0	.9	.0		3.0	.0	.0	.0	2.4	.2	.0		2.6
12	.0	.0	.0	1.9	.4	.0		2.3	.0	.0	.0	.8	.2	.0		1.0
13-16	.0	.0	.1	.6	.2	.0		.9	.0	.0	.0	.0	.0	.0		.7
17-19	.0	.0	.1	.0	.5	.0		.6	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.3	1.0	.3		1.5	.0	.0	.2	.2	.0	.0		.4
23-25	.0	.0	.0	.0	.4	.5		.9	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.1	.2	.0		.3	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.3	4.7	9.6	13.4	4.6	.8		33.4	.2	3.1	6.1	10.6	1.5	.3		99.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	1.9	2.6	.0	.0	.0	.0	.0	4.6
1-2	.5	9.3	3.0	.0	.0	.0	.0	12.9
3-4	.0	9.5	10.0	1.6	.0	.0	.0	21.1
5-6	.0	1.8	11.6	5.6	1.2	.0	.0	20.2
7	.0	.4	4.8	8.3	1.1	.0	.0	14.4
8-9	.0	.2	.7	5.8	1.8	.0	.0	8.5
10-11	.0	.0	.7	4.9	1.2	.2	.0	7.0
12	.0	.0	.0	3.2	.5	.0	.0	3.7
13-16	.0	.2	.5	1.8	.4	.2	.0	3.0
17-19	.0	.0	.2	.2	.5	.0	.0	.9
20-22	.0	.0	.4	.8	1.1	.4	.0	2.3
23-25	.0	.0	.2	.0	.4	.5	.0	1.1
26-32	.0	.0	.0	.2	.2	.0	.0	.4
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.5	23.9	32.0	32.0	8.3	1.2	100.0	568

PERIOD: (OVER-ALL) 1949-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.6	3.1	4.8	1.9	1.6	.5	.6	1.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.4
6-7	.0	.0	1.5	4.5	4.7	3.2	1.6	1.3	1.1	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	152
8-9	.0	.5	.6	2.6	3.4	3.3	5.1	1.5	2.5	1.1	1.6	.1	.5	.0	.0	.0	.0	.0	.0	.0	200
10-11	.0	.1	.2	.6	1.4	2.3	3.1	1.3	4.2	1.8	1.5	.1	.3	.1	.0	.0	.0	.0	.0	.0	158
12-13	.0	.0	.1	.5	1.0	1.6	1.8	1.9	3.1	.5	1.1	.6	.7	.0	.0	.0	.0	.0	.0	.0	113
>13	.0	.0	.0	.0	.1	.3	.6	.7	1.3	.5	.7	.8	.6	.0	.0	.0	.0	.0	.0	.0	48
INDEX	.9	1.4	1.3	.5	.9	.8	1.0	.3	1.0	.1	.5	.1	.5	.0	.0	.0	.0	.0	.0	.0	81
TOTAL	13	44	74	92	115	105	121	71	116	38	48	16	22	1	0	0	0	0	0	0	874
PCT	1.5	5.0	8.4	10.5	13.1	12.0	13.6	8.1	13.2	4.3	5.5	1.8	2.5	.1	.0	.0	.0	.0	.0	.0	100.0

AUGUST

PERIOD: (PRIMARY) 1917-1970  
(OVER-ALL) 1858-1970AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	BLWG DUST	SPRAY BLWG SNOW	NO SIG WEA
N	2.5	6.0	.0	.0	.0	.0	.0	8.5	3.1	1.2	.0	.0	.0	.0	.0	88.5
NE	5.8	1.6	.0	.0	.0	.0	.0	7.4	.5	.0	1.1	.0	.3	.0	.0	90.7
E	1.5	.5	1.0	.0	.0	.0	.0	2.9	1.5	.0	.7	.0	.7	.0	.0	94.1
SE	3.9	5.3	.5	.0	.0	.0	.0	9.7	2.4	.0	.2	.0	.0	.0	.0	87.6
S	1.7	7.5	1.1	.0	.0	.0	.0	10.4	7.2	.0	.0	.0	.0	.0	.0	82.4
SW	2.6	11.2	1.4	.0	.0	.0	.4	15.2	5.3	.3	.0	.0	.0	.0	.0	79.2
W	4.7	13.0	1.3	.0	.0	.0	.4	19.2	5.0	1.0	1.2	.0	.0	.0	.0	73.8
NW	8.8	13.3	.7	.0	.0	.0	.0	22.8	3.7	1.3	.2	.0	.0	.0	.0	72.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	9.1	9.1	.0	.0	.0	.0	.0	18.2	.0	.0	.0	.0	.0	.0	.0	81.8
TOT	4.2	9.7	1.0	.0	.0	.0	.2	14.9	4.4	.6	.5	.0	.1	.0	.0	79.8
PCT																
TOT	1776															

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	BLWG DUST	SPRAY BLWG SNOW	NO SIG WEA
00603	5.0	10.1	1.5	.0	.0	.0	.2	16.4	3.6	.4	.2	.0	.2	.0	.0	79.4
06609	4.0	7.3	1.3	.0	.0	.0	.3	12.5	5.8	.0	.5	.0	.0	.0	.0	81.3
12015	3.8	9.7	.8	.0	.0	.0	.2	14.5	3.0	.8	.8	.0	.0	.0	.0	81.3
18021	3.3	11.8	.5	.0	.0	.0	.3	15.8	5.5	1.3	.3	.0	.0	.0	.0	77.6
TOT PCT TOT OBS:	4.1 1830	9.7	1.0	.0	.0	.0	.2	14.9	4.3	.6	.4	.0	.1	.0	.0	79.9

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.6	2.3	3.6	1.0	.3	.0		7.8	14.4		9.8	9.4	5.6	10.0	5.0	8.6	7.2	8.5
NE	.3	2.2	1.9	.6	.1	.0		5.1	12.3		6.7	6.2	4.8	3.6	3.5	4.0	6.4	4.7
E	.4	3.6	1.3	.2	.0	.0		5.6	9.3		4.4	7.8	5.0	4.9	5.8	4.5	6.9	6.3
SE	.3	2.9	1.9	.3	.1	.0		5.7	11.6		5.5	6.4	4.9	4.4	6.3	5.0	7.0	5.4
S	.4	4.7	4.0	1.7	.3	.1		11.3	14.0		10.7	7.9	12.7	8.8	13.7	9.5	15.2	9.1
SW	.6	5.2	7.3	5.2	1.1	.2		19.6	17.9		22.2	19.3	22.6	17.3	18.5	16.0	18.4	19.5
W	.6	5.8	9.0	8.7	2.6	.4		27.0	20.1		25.6	24.1	25.2	28.2	28.7	32.4	25.7	27.5
NW	.4	4.2	5.9	4.9	1.2	.1		16.8	18.5		15.0	18.1	18.9	20.1	16.4	17.1	12.2	18.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.2							1.2	.0		.2	.7	.3	2.8	1.9	2.9	1.0	.4
TOT OBS	125	803	909	588	148	21	2594		16.5		509	299	322	211	522	210	286	235
TOT PCT	4.8	31.0	35.0	22.7	5.7	.8		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	1.6	3.2	2.1	.7	.2			7.8	14.4		9.7	7.3	6.0	7.8
NE	1.1	2.7	1.0	.3	.0			5.1	12.3		6.5	4.3	3.7	5.6
E	2.2	2.9	.4	.1	.0			5.6	9.3		5.7	4.9	5.5	6.6
SE	1.4	3.1	1.0	.2	.0			5.7	11.6		5.8	4.7	5.9	6.3
S	2.4	5.5	2.3	1.0	.2			11.3	14.0		9.7	11.1	12.5	12.5
SW	2.0	7.4	6.4	3.3	.5			19.6	17.9		21.1	20.5	17.8	18.9
W	2.6	7.7	10.1	5.2	1.3			27.0	20.1		25.1	26.4	29.7	26.5
NW	1.9	5.8	5.5	3.0	.5			16.8	18.5		16.2	19.4	16.6	15.1
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	1.2							1.2	.0		.4	1.3	2.2	.8
TOT OBS	424	994	750	357	69	2594			16.5		808	533	732	521
TOT PCT	16.3	38.3	28.9	13.8	2.7			100.0			100.0	100.0	100.0	100.0

## AUGUST

PERIOD: (PRIMARY) 1917-1970  
(OVER-ALL) 1858-1970AREA 0017 CAPE LEEUWIN  
33.9S 114.6E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND DIR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL DBS
00003	.4	3.7	28.6	35.8	25.0	5.9	.6	17.0	100.0	808
00009	1.3	4.5	30.6	33.8	23.1	6.4	.4	16.7	100.0	833
12015	2.2	3.7	33.2	33.3	21.2	5.3	1.1	15.9	100.0	732
18021	.8	2.7	31.9	37.6	20.7	5.2	1.2	16.5	100.0	521
TOT	30	95	803	909	588	148	21	16.5		2594
PCT	1.2	3.7	31.0	35.0	22.7	5.7	.8	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL DBS	MEAN CLOUD COVER
N	1.9	1.0	2.6	.7		4.3
NE	3.1	.9	1.5	.6		3.1
E	2.5	1.0	1.7	1.8		4.1
SE	1.3	.9	2.9	.8		4.9
S	1.9	3.1	7.5	1.4		5.1
SW	2.2	5.3	11.2	2.6		5.2
W	2.1	5.6	12.5	4.0		5.2
NW	2.1	3.6	5.1	3.5		5.2
VAR	.0	.0	.0	.0		.0
CALM	.2	.1	.4	.1		5.0
TOT DBS	177	207	441	146	971	4.9
TOT PCT	18.2	21.3	45.4	15.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)  
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8 ANY HGT	TOTAL DBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.3	.8	.7	.2	.1	.0	.0	.0	4.1
.0	.0	.0	.1	.6	.6	.3	.0	.0	.0	.0	4.4
.0	.0	.1	.2	1.3	.6	.0	.0	.0	.1	.0	4.4
.0	.0	.1	.2	1.4	.4	.5	.1	.0	.0	.0	3.3
.0	.0	.2	.6	3.1	2.3	.5	.1	.1	.0	.0	5.9
.1	.0	.2	1.9	4.8	2.9	1.3	.1	.0	.0	.0	10.0
.0	.0	.5	3.5	5.5	2.4	1.4	.1	.2	.0	.0	11.5
.0	.1	.2	1.8	2.0	1.7	.6	.0	.1	.1	.0	7.6
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.4	.0	.0	.0	.0	.0	.0	.3
1	1	12	85	193	113	46	4	4	2	510	971
.1	.1	1.2	8.8	19.9	11.6	4.7	.4	.4	.2	52.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >A500	.6	.7	.7	.7	.7	.7	.7	.7
OR >A000	.9	1.1	1.1	1.1	1.1	1.1	1.1	1.1
OR >A500	5.1	5.8	6.0	6.0	6.0	6.0	6.0	6.0
OR >A000	14.5	16.7	17.4	17.5	17.5	17.5	17.5	17.5
OR >A000	30.3	36.2	37.1	37.2	37.2	37.2	37.2	37.2
OR >A00	34.7	43.8	45.5	45.6	45.6	45.9	45.9	45.9
OR >A00	35.0	44.8	46.8	46.9	46.9	47.1	47.1	47.1
OR >A00	35.0	44.8	46.9	47.0	47.0	47.2	47.2	47.2
OR >A00	35.0	44.8	46.9	47.0	47.1	47.3	47.3	47.3
TOTAL	346	443	463	464	465	467	467	467

TOTAL NUMBER OF DBS: 988

PCT FREQ NH &lt; 5/8: 52.7

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL DBS
5.7	8.6	12.0	11.7	14.5	11.3	11.1	12.5	12.6	.0	1078

PERIOD: (PRIMARY) 1912-1970  
(OVER-ALL) 1858-1970

AUGUST

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	.0	.0	.0	.0	*	.1	.1	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	.0	.0	.0	.0	*	.1	.1	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
2<5	PCP	*	.1	.0	.1	.0	.1	.3	.2	.0	.0	.9	
	NO PCP	.1	.1	*	*	.2	.2	.4	.3	.0	.0	1.1	
	TOT %	.1	.2	*	.1	.2	.3	.7	.5	.0	.0	2.0	
5<10	PCP	.5	.2	.1	.3	1.0	2.3	3.4	2.3	.0	.0	10.2	
	NO PCP	2.7	1.2	1.2	1.3	3.6	6.8	8.2	5.6	.0	.2	30.9	
	TOT %	3.3	1.4	1.3	1.6	4.7	9.1	11.6	7.9	.0	.2	41.1	
10+	PCP	.0	.1	.1	.3	.3	.7	1.1	.9	.0	.1	3.5	
	NO PCP	3.4	3.7	4.4	3.9	7.8	11.2	12.1	6.3	.0	.3	53.0	
	TOT %	3.4	3.7	4.4	4.2	8.1	11.9	13.2	7.2	.0	.4	56.5	
TOT OBS													
TOT PCT													
		6.8	5.3	5.8	5.8	12.9	21.4	25.6	15.7	.0	.6	100.0	1773

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	*	.0	.0	.0	.0	*	.1	.1	.0	.0	.2	
	TOT %	*	.0	.0	.0	.0	*	.1	.1	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
2<5	0-3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	*	.1	.0	.0	.1	.1	.0	.1	.0	.0	.4	
	11-21	.1	.0	*	.1	.1	.0	.4	.1	.0	.0	.7	
	22+	*	.1	.0	.0	.0	.2	.6	.3	.0	.0	1.2	
	TOT %	.1	.2	*	.1	.1	.3	1.0	.6	.0	.0	2.3	
5<10	0-3	.4	.1	.1	.1	.2	.1	.2	.1	.0	.2	1.5	
	4-10	.7	.4	.8	.5	1.4	1.8	2.0	1.9	.0	.0	9.5	
	11-21	1.2	.5	.3	.7	1.3	2.5	3.8	2.6	.0	.0	13.0	
	22+	.7	.3	.0	.2	1.4	4.4	5.6	2.8	.0	.0	15.4	
	TOT %	3.0	1.3	1.2	1.5	4.3	8.9	11.7	7.4	.0	.2	39.4	
10+	0-3	.1	.2	.4	.3	.1	.5	.6	.2	.0	.6	2.9	
	4-10	1.4	2.1	3.2	2.8	3.9	3.8	3.8	1.5	.0	.0	22.6	
	11-21	2.2	1.4	.8	.9	2.9	5.1	5.2	2.6	.0	.0	21.1	
	22+	.4	.1	.1	.1	1.1	2.4	4.0	2.9	.0	.0	11.2	
	TOT %	4.1	3.8	4.5	4.2	8.1	11.8	13.6	7.2	.0	.6	57.9	
TOT OBS													
TOT PCT													
		7.3	5.3	5.8	5.7	12.5	21.1	26.3	15.3	.0	.8	100.0	1920



## AUGUST

PERIOD: (PRIMARY) 1912-1970  
(OVER-ALL) 1858-1970

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33.95 114.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL DBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.3	.7	9.8	22.7	12.9	5.6	.7	.3	.3	53.5	44.5	286
06009	.4	.0	1.8	7.3	20.4	10.5	4.7	.0	.7	.0	45.8	54.7	275
12015	.0	.0	.8	9.3	15.3	10.2	3.8	.8	.0	.4	40.7	59.3	236
18021	.0	.0	1.3	7.2	16.0	10.1	4.2	.0	.4	.4	39.7	60.3	237
TOT	1	1	12	87	195	114	48	4	4	3	469	565	1034
PCT	.1	.1	1.2	8.4	18.9	11.0	4.6	.4	.4	.3	45.4	54.6	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NH) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL
(GMT)							DBS
00003	.0	.2	.0	2.2	41.0	56.6	578
06009	.5	.2	.0	3.1	35.1	61.2	425
12015	.0	.0	.0	2.6	44.9	52.6	548
18021	.5	.0	.2	1.2	35.2	62.9	423
TOT	4	2	1	45	781	1141	1974
PCT	.2	.1	.1	2.3	39.6	57.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NH) AND/OR  
CEILING HGT (FEET, NH > 4/8), BY HOUR

HR	<150	<600	<1000	1000+	NH < 5/8 AND 5+	TOTAL
(GMT)	<50YD	<1	<5	AND 5+		DBS
00003	.0	1.1	13.9	42.7	43.4	274
06009	.4	2.6	10.9	37.4	51.7	265
12015	.0	.9	12.3	31.5	56.2	219
18021	.0	1.7	9.6	31.7	58.7	230
TOT	1	16	116	358	514	988
PCT	.1	1.6	11.7	36.2	52.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL	PCT
									DBS	FREQ
70/74	.0	.0	.0	.0	.1	.0	.1	.1	3	.2
65/69	.0	.0	.1	.1	1.1	.7	.8	.4	45	3.4
60/64	.0	.0	.6	2.4	9.3	11.3	5.0	1.6	409	30.5
55/59	.0	.1	.4	3.4	14.0	18.0	11.2	4.6	697	51.9
50/54	.0	.0	.0	1.4	3.5	2.8	4.5	1.5	187	13.9
45/49	.0	.0	.0	.0	.0	.1	.1	.0	2	.1
TOTAL	0	1	15	107	376	443	291	110	1343	100.0
PCT	.0	.1	1.1	8.0	28.0	33.0	21.7	8.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.0	.0	.0	.1	.1	.0	.0	.0
.5	.1	.4	.2	.0	.2	.6	1.2	.0	.1
3.3	2.2	2.6	1.1	1.5	3.3	8.1	8.2	.0	.1
2.3	3.1	2.2	3.6	8.1	12.7	13.6	5.8	.0	.8
.3	.4	.7	.8	3.5	5.0	2.5	.8	.0	.0
.0	.0	.0	*	.1	.1	.0	.0	.0	.0
6.4	5.9	6.0	5.8	13.1	21.3	24.8	15.9	.0	.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL
(GMT)									DBS
00003	72	67	64	58	53	51	48	58.3	805
06009	72	69	65	59	54	51	49	59.4	525
12015	73	66	64	58	52	50	48	58.1	727
18021	66	64	62	58	52	51	47	57.5	526
TOT	73	67	64	58	53	50	47	58.3	2583

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL
(GMT)								DBS
00003	.0	9.0	25.6	35.5	22.3	7.7	74	391
06009	.0	14.4	35.8	29.4	16.0	4.5	71	313
12015	.0	7.5	22.9	35.6	23.5	10.5	75	371
18021	.0	6.2	28.6	30.2	24.7	10.4	75	308
TOT	0	127	385	456	300	115	74	1383

PERIOD: (PRIMARY) 1912-1970  
(OVER-ALL) 1858-1970

AUGUST

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
.5 AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT	N FOG	NO FOG
7/8	.0	.0	.1	.1	.1	.0	.0	3	.0	.2
6	.0	.0	.0	.0	.1	.0	.0	2	.0	.1
5	.0	.0	.2	.1	.0	.0	.1	5	.0	.3
4	.0	.0	.3	.2	.1	.1	.0	10	.0	.6
3	.0	.1	.1	.3	.3	.2	.0	17	.0	1.1
2	.0	.1	.4	.8	.4	.1	.0	29	.0	1.9
1	.0	.1	1.2	1.4	.9	.0	.0	57	.0	3.7
0	.0	.4	2.1	2.3	.4	.1	.0	82	.1	5.2
-1	.1	.4	2.7	3.1	.5	.0	.0	108	.1	6.9
-2	.0	.9	3.3	3.2	.2	.0	.0	119	.1	7.5
-3	.0	1.7	4.1	3.4	.0	.0	.0	144	.1	9.2
-4	.1	2.4	5.7	3.0	.1	.0	.0	176	.0	11.3
-5	.2	2.9	6.9	1.5	.1	.0	.0	180	.1	11.5
-6	.3	2.6	5.9	1.0	.0	.0	.0	153	.0	9.8
-7/-8	.6	6.7	7.5	1.1	.0	.0	.0	248	.0	15.9
-9/-10	1.4	5.4	2.4	.0	.0	.0	.0	143	.0	9.2
-11/-13	1.0	2.6	.9	.1	.0	.0	.0	71	.0	4.6
-14/-16	.1	.4	.1	.0	.0	.0	.0	9	.0	.6
-17/-19	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	61	419	338	50	6	1		1557		1551
PCT	3.9	26.9	43.8	21.7	3.2	.4	.1	100.0	.4	99.6

PERIOD: (OVER-ALL) 1963-1970

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.1	.0	.0	.0	.0	.1	.2	.5	.0	.0	.0	.0	.0	.0	.7
1-2	.1	1.4	.3	.0	.0	.0	1.8	.2	1.2	.6	.0	.0	.0	.0	.0	2.0
3-4	.0	.4	.8	.0	.0	.0	1.2	.0	1.3	1.5	.0	.0	.0	.0	.0	2.8
5-6	.0	.0	1.7	.2	.0	.0	1.9	.0	.0	.5	.2	.0	.0	.0	.0	.6
7	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.9	3.1	.4	.0	.0	5.6	.5	3.0	2.7	.4	.0	.0	.0	.0	6.6

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.5	1.4	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.2	2.2	.5	.0	.0	.0	2.8	.0	1.6	.0	.0	.0	.0	.0	.0	1.6
3-4	.0	1.7	1.0	.0	.0	.0	2.7	.0	1.3	1.3	.0	.0	.0	.0	.0	2.6
5-6	.0	.0	.9	.1	.0	.0	1.0	.0	.0	.2	.1	.0	.0	.0	.0	.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.2	.0	.0	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.2	2.3	.1	.0	.0	8.4	.0	3.0	2.4	.4	.0	.0	.0	.0	5.7

PERIOD: (OVER-ALL) 1963-1970

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.6	.1	.0	.0	.0	1.7	.5	.2	.0	.0	.0	.0	.8	
1-2	.0	2.7	.8	.0	.0	.0	3.5	.0	3.5	1.2	.0	.0	.0	4.7	
3-4	.0	1.5	1.9	.4	.0	.0	3.7	.0	2.1	3.3	.0	.0	.0	5.5	
5-6	.0	.5	1.6	.3	.0	.0	2.4	.0	.9	3.6	.8	.2	.0	5.5	
7	.0	.0	1.9	.6	.0	.0	2.5	.0	.2	.8	1.5	.2	.0	2.7	
8-9	.0	.0	.1	.5	.0	.0	.7	.0	.0	.2	1.5	.2	.0	1.9	
10-11	.0	.0	.0	.6	.4	.0	1.0	.0	.0	.0	.6	.3	.0	.9	
12	.0	.0	.0	.2	.2	.0	.4	.0	.0	.0	.0	.2	.0	.3	
13-16	.0	.0	.2	.4	.0	.0	.5	.0	.0	.0	.2	.0	.0	.2	
17-19	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	6.2	6.6	3.1	.8	.0	16.7	.5	6.9	9.3	4.6	1.3	.0	22.6	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.7	.7	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	
1-2	.2	1.3	.5	.0	.0	.0	2.0	.4	.7	.6	.0	.0	.0	1.7	
3-4	.0	1.5	2.1	.8	.0	.0	4.5	.0	.7	1.8	.0	.0	.0	2.6	
5-6	.0	.3	2.4	1.0	.0	.0	3.8	.0	.3	1.9	.4	.0	.0	2.8	
7	.0	.2	1.5	1.4	.3	.0	3.3	.0	.2	1.1	1.2	.2	.0	2.7	
8-9	.0	.0	.9	2.1	.6	.0	3.7	.0	.0	.0	1.0	.1	.0	1.0	
10-11	.0	.0	.2	.2	.7	.0	1.1	.0	.0	.0	.7	.2	.0	.9	
12	.0	.0	.0	.5	.3	.0	.8	.0	.0	.0	.4	.0	.0	.4	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
17-19	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.9	4.1	7.7	6.0	2.1	.0	20.8	.4	2.1	5.4	3.9	.5	.0	12.3	98.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	4.5	4.8	.2	.0	.0	.0	9.4	
1-2	1.2	14.8	4.5	.0	.0	.0	20.5	
3-4	.0	10.3	13.5	1.2	.0	.0	25.1	
5-6	.0	2.1	12.5	3.0	.2	.0	17.8	
7	.0	.5	6.1	4.8	.7	.0	12.1	
8-9	.0	.0	1.6	5.0	.9	.0	7.5	
10-11	.0	.0	.2	2.1	1.6	.0	3.9	
12	.0	.0	.0	1.2	.7	.0	2.0	
13-16	.0	.0	.2	.7	.0	.0	.9	
17-19	.0	.0	.0	.0	.4	.0	.4	
20-22	.0	.0	.0	.2	.2	.0	.4	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.7	32.6	38.7	18.4	4.6	.0	100.0	561

PERIOD: (OVER-ALL) 1949-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.6	4.0	4.9	2.5	1.3	.9	.5	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	121	4
6-7	.0	1.3	7.8	5.4	4.3	2.5	1.3	.9	.9	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	156	7
8-9	.0	.0	1.1	2.8	4.7	5.4	3.4	2.6	3.8	.6	.6	.3	.1	.0	.0	.0	.0	.0	.0	202	10
10-11	.0	.0	.1	2.0	2.3	2.4	3.1	2.1	4.2	.8	.8	.3	.0	.0	.0	.0	.0	.0	.0	149	11
12-13	.0	.0	.1	.5	1.6	1.5	2.4	.9	1.1	.6	.6	.4	.6	.0	.0	.0	.0	.0	.0	83	12
>13	.0	.0	.0	.1	.3	.4	.6	.6	1.0	.1	.1	.0	.4	.0	.0	.0	.0	.0	.0	29	13
INDET	.6	.5	.9	.9	.4	1.4	1.0	.0	.6	.1	.3	.0	.1	.0	.0	.0	.0	.0	.0	54	8
TOTAL	10	46	79	113	117	115	98	60	93	19	20	12	12	0	0	0	0	0	0	794	9
PCT	1.3	5.8	9.9	14.2	14.7	14.5	12.3	7.6	11.7	2.4	2.5	1.5	1.5	.0	.0	.0	.0	.0	.0	100.0	

## SEPTEMBER

PERIOD: (PRIMARY) 1912-1970  
(OVER-ALL) 1855-1970AREA 0017 CAPE LEEUWIN  
33.9S 114.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD W D PCPN	FGD W D PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	1.1	8.4	1.5	.0	.0	.0	.0	11.0	2.7	.0	.0	.0	.0	.0	86.3
NE	3.7	4.7	1.9	.0	.0	.0	.0	10.2	.5	1.9	1.9	.0	.0	.0	85.6
E	1.9	4.3	.7	.0	.0	.0	.0	7.0	.7	1.0	.0	.0	.0	.0	91.3
SE	.6	2.4	2.1	.0	.0	.0	.0	5.1	3.2	.0	.0	.0	.6	.0	91.1
S	1.5	6.7	.9	.0	.0	.0	.3	9.4	2.9	.0	.0	.0	.4	.0	87.4
SW	3.2	7.7	2.2	.0	.0	.0	.1	12.6	3.4	.4	.2	.0	.0	.0	83.7
W	3.7	14.6	1.9	.0	.0	.0	.3	20.1	5.4	1.3	.2	.0	.0	.2	73.4
NW	3.8	13.6	.5	.0	.0	.0	.2	18.1	4.0	2.1	.5	.0	.0	.0	76.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	.0	.0	.0	92.9
TOT PCT	2.7	9.3	1.5	.0	.0	.0	.2	13.5	3.6	.8	.3	.0	.1	.1	82.1
TOT OBS:	1751														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD W D PCPN	FGD W D PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
06003	3.9	8.7	1.6	.0	.0	.0	.2	14.0	3.5	.4	.2	.0	.2	.2	81.9
06009	1.2	9.0	1.2	.0	.0	.0	.5	11.6	5.7	.2	.0	.0	.0	.0	82.7
12015	2.5	10.7	1.2	.0	.0	.0	.0	14.5	1.9	1.0	.4	.0	.0	.0	82.4
18021	3.4	8.0	3.1	.0	.0	.0	.0	14.2	3.4	1.6	.5	.0	.3	.0	80.9
TOT PCT	2.8	9.2	1.7	.0	.0	.0	.2	13.6	3.6	.8	.3	.0	.1	.1	82.0
TOT OBS:	1800														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21
N	.3	2.0	1.3	.6	.2	.0		4.4	12.6	5.6	7.9	3.0	3.4	3.3	4.6	3.1	4.3
NE	.3	2.1	1.0	.2	.0	.0		3.5	9.5	5.1	6.2	2.4	2.2	1.8	4.0	2.8	4.3
E	.3	2.8	2.5	.2	*	*		5.8	11.1	7.4	6.6	6.7	2.9	3.9	4.8	7.7	5.1
SE	.4	3.9	4.0	.7	*	*		9.0	12.2	8.7	7.5	9.3	6.9	9.7	8.9	12.2	7.1
S	.8	6.6	5.0	2.0	.1	.0		14.5	12.6	14.4	10.7	15.8	15.8	14.3	14.4	14.1	17.5
SW	.6	7.7	8.6	4.4	1.6	.2		23.0	16.4	21.3	19.7	22.6	21.8	27.6	23.1	24.4	19.5
W	.2	6.1	10.6	6.1	2.8	.2		26.0	19.1	24.6	24.5	24.9	34.7	24.2	23.1	26.5	25.6
NW	.3	3.5	5.2	2.8	.8	*		12.7	17.0	12.3	16.3	14.1	11.3	12.2	13.8	9.2	13.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.2							1.2	.0	.5	.7	1.2	1.0	1.2	3.2	.0	3.1
TOT OBS	109	872	963	423	138	11	2516		15.3	497	283	341	204	500	186	309	195
TOT PCT	4.3	34.7	38.5	16.8	5.5	.4		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	1.2	2.0	.8	.3	*		4.4	12.6	6.4	3.2	3.6	3.6		
NE	1.4	1.6	.5	.1	.0		3.5	9.5	5.5	2.3	2.4	3.4		
E	1.3	3.5	1.0	*	*		5.8	11.1	7.1	5.3	4.1	6.7		
SE	1.7	5.2	1.9	.2	*		9.0	12.2	8.2	8.4	9.4	10.2		
S	3.4	7.3	2.8	.9	.1		14.5	12.6	13.1	15.8	14.3	15.4		
SW	2.9	10.4	6.4	2.8	.6		23.0	16.4	20.7	22.3	26.4	22.5		
W	2.2	9.8	8.1	4.6	1.2		26.0	19.1	24.6	28.6	25.4	26.1		
NW	1.6	5.1	3.9	2.0	.1		12.7	17.0	13.8	13.0	12.6	10.8		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	1.2						1.2	.0	.6	1.1	1.7	1.2		
TOT OBS	424	1130	638	273	51	2516		15.3	780	545	686	505		
TOT PCT	16.9	44.9	25.4	10.9	2.0		100.0		100.0	100.0	100.0	100.0		

SEPTEMBER

PERIOD: (PRIMARY) 1912-1970  
(OVER-ALL) 1855-1970

AREA 0017 CAPE LEEUWIN  
33.9S 114.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	.6	2.9	34.2	39.7	16.8	4.9	.8	15.6	100.0	780
0600	1.1	2.4	31.6	38.7	18.2	7.9	.2	16.2	100.0	545
1200	1.7	3.6	35.6	35.9	17.1	5.5	.6	15.1	100.0	686
1800	1.2	3.8	37.4	38.8	15.0	3.8	.0	14.4	100.0	505
TOT	29	80	872	963	423	138	11	15.3		2516
PCT	1.2	3.2	34.7	38.3	16.8	5.5	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	1.8	.4	1.1	.3		3.3
NE	1.4	.7	1.0	.5		3.6
E	2.7	.9	2.3	.8		3.6
SE	2.9	2.5	4.2	.9		4.3
S	2.7	3.1	6.8	2.5		4.9
SW	2.7	5.0	11.3	4.7		5.4
W	3.0	5.1	11.8	5.4		5.4
NW	1.9	2.0	4.8	2.1		5.2
VAP	.0	.0	.0	.0		.0
CALM	.4	.1	.2			3.6
TOT OBS	215	220	480	192	1107	4.9
TOT PCT	19.4	19.9	43.4	17.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.2	.5	*	*	.2	*	.0	2.6	
.0	.0	.0	.1	.5	.2	.2	.1	*	.0	2.5	
.0	.0	.0	.1	.8	.9	.3	.0	*	.0	4.6	
.1	.0	.1	1.2	1.7	.9	.3	.1	*	.0	6.0	
.0	.0	.1	.9	3.8	1.8	.7	.4	.0	.0	7.4	
.0	.2	.3	2.3	5.8	3.9	1.0	.5	.0	*	9.8	
.0	.0	.3	2.9	6.6	3.0	.9	.4	.0	.2	10.9	
.0	.2	*	.7	2.2	1.4	.5	.2	.0	.1	5.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.5	
1	4	9	92	243	134	44	20	2	4	554	1107
.1	.4	.8	8.3	22.0	12.1	4.0	1.8	.2	.4	50.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.4	.5	.5	.5	.5	.5	.5	.5
>5000	2.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3
>3500	5.2	6.2	6.3	6.3	6.3	6.3	6.3	6.3
>2000	16.1	17.9	18.2	18.2	18.2	18.2	18.2	18.2
>1000	33.7	38.8	39.9	40.0	40.0	40.0	40.0	40.0
>500	39.6	46.8	48.3	48.4	48.4	48.4	48.4	48.4
>300	39.9	47.4	49.0	49.2	49.2	49.2	49.2	49.2
>150	40.0	47.7	49.3	49.6	49.6	49.6	49.6	49.6
>0	40.1	47.8	49.4	49.7	49.7	49.7	49.7	49.7
TOTAL	451	538	556	559	559	559	559	559

TOTAL NUMBER OF OBS: 1125

PCT FREQ NH <5/8: 50.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
7.7	8.5	11.4	12.1	10.5	9.3	13.2	12.6	14.7	.0	1224



## SEPTEMBER

PERIOD: (PRIMARY) 1917-1970  
(OVER-ALL) 1859-1970

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL DBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	*	.0	.0	.0	.0	.0	.1	*	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.1	
	TOT %	*	.0	.0	.0	.0	.0	.1	*	.0	.1	.2	
1<2	PCP	.0	.0	.0	.0	.0	.0	*	.1	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.1	.1	.0	.1	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.1	.1	*	.1	.0	.0	.3	
2<5	PCP	*	.0	.1	.1	.1	.3	.1	.1	.0	.0	.8	
	NO PCP	.0	.0	.0	.1	.1	.1	.1	.1	.0	.0	.5	
	TOT %	*	.0	.1	.2	.3	.5	.1	.1	.0	.0	1.3	
5<10	PCP	.3	.1	.2	.3	.7	1.7	4.0	1.7	.0	.0	9.1	
	NO PCP	.9	.6	.7	1.7	3.3	6.0	6.5	3.4	.0	.3	23.4	
	TOT %	1.2	.7	.9	2.0	4.1	7.7	10.5	5.1	.0	.3	32.5	
10+	PCP	.0	.2	.2	.1	.5	.9	1.1	.3	.0	.0	3.3	
	NO PCP	2.5	2.2	4.8	7.2	10.0	14.5	14.1	6.7	.0	.5	62.5	
	TOT %	2.5	2.4	4.9	7.3	10.6	15.4	15.2	7.0	.0	.5	65.7	
TOT DBS													1750
TOT PCT													3.8 3.1 5.9 9.5 15.0 23.7 26.0 12.4 .0 .8 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL DBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	*	.0	.0	.0	.0	.0	.0	*	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	TOT %	*	.0	.0	.0	.0	.0	.1	*	.0	.1	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.1	*	.1	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	
	TOT %	.0	.0	.0	.0	.1	.1	*	.1	.0	.0	.3	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	*	.0	.1	.2	*	.1	.0	*	.0	.0	.4	
	11-21	.0	.0	.0	.0	.2	.2	.1	.1	.0	.0	.5	
	22+	.0	.0	.0	*	.1	.2	.0	.1	.0	.0	.3	
	TOT %	*	.0	.1	.2	.3	.4	.1	.1	.0	.0	1.2	
5<10	0-3	*	*	.0	.3	.2	.2	.1	.0	.0	.3	1.1	
	4-10	.5	.3	.5	.6	1.7	2.0	1.5	1.0	.0	.0	8.2	
	11-21	.3	.3	.3	.7	1.2	3.0	3.8	1.7	.0	.0	11.3	
	22+	.2	.1	.0	.2	.6	1.9	4.2	1.9	.0	.0	9.1	
	TOT %	1.1	.6	.9	1.8	3.8	7.0	9.6	4.7	.0	.3	29.8	
10+	0-3	.2	.3	.3	.1	.5	.3	.2	.2	.0	.7	2.9	
	4-10	1.5	1.5	2.4	3.2	5.5	6.2	4.8	2.6	.0	.0	27.7	
	11-21	.9	.8	2.2	3.6	4.0	5.9	6.9	3.1	.0	.0	27.6	
	22+	.3	.1	.3	.6	1.5	3.3	3.3	1.2	.0	.0	10.5	
	TOT %	2.9	2.7	5.2	7.5	11.5	15.7	15.2	7.1	.0	.7	68.6	
TOT DBS													1926
TOT PCT													4.1 3.3 6.1 9.5 15.6 23.2 25.0 12.1 .0 1.0 100.0

SEPTEMBER

PERIOD: (PRIMARY) 1912-1970  
(OVER-ALL) 1855-1970

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <4/8 ANY HGT	TOTAL OBS
00003	.0	.6	1.0	7.3	19.7	13.4	3.8	2.9	.3	.6	49.7	50.3	314
06009	.0	.6	1.0	7.4	20.0	11.6	3.2	1.6	.0	.0	45.5	54.5	310
12015	.4	.0	.7	7.8	22.4	10.3	3.9	1.4	.4	.4	47.7	52.3	281
18021	.0	.0	.4	10.0	21.5	10.4	4.4	.7	.0	.4	47.8	52.2	270
TOT	1	4	9	95	245	135	45	20	2	4	560	415	1175
PCT	.1	.3	.8	8.1	20.9	11.5	3.8	1.7	.2	.3	47.7	52.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.4	.0	2.3	29.6	67.7	564
06009	.0	.2	.4	.4	28.4	70.4	450
12015	.0	.0	.4	.6	34.4	64.7	544
18021	.0	.2	.2	1.2	29.3	69.1	417
TOT	0	4	5	23	604	1339	1975
PCT	.0	.2	.3	1.2	30.6	67.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	1.7	11.3	40.9	47.8	301
06009	.0	1.7	10.1	37.4	52.5	297
12015	.4	1.1	10.4	39.6	50.0	268
18021	.0	.4	12.0	37.5	50.6	259
TOT	1	14	123	437	565	1125
PCT	.1	1.2	10.9	38.8	50.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.1	.1	.1	.2	.0	7	.5
65/69	.0	.0	.0	.4	1.2	1.4	.6	.4	56	4.0
60/64	.0	.0	.2	2.5	8.2	11.9	6.2	1.4	424	30.4
55/59	.0	.0	.1	3.7	14.0	17.7	15.2	3.9	764	54.7
50/54	.0	.0	.0	.9	3.1	2.1	2.9	1.1	143	10.2
45/49	.0	.0	.0	.0	.1	.1	.0	.0	3	.2
TOTAL	0	5	109	374	464	350	95	1397	100.0	
PCT	.0	.0	.4	7.8	24.8	33.2	25.1	6.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.1	.0	.1	.1	.0	.0	*	.0	.0
.3	.1	.8	.4	.3	.7	.8	.7	.0	.0
1.6	1.2	2.0	2.2	3.5	4.5	9.3	5.6	.0	.5
1.5	1.5	2.9	5.4	8.0	15.6	13.5	5.7	.0	.5
.1	.0	.5	1.2	2.6	3.7	2.0	.2	.0	.0
.0	.0	.0	.0	.0	.1	.1	.0	.0	.0
3.6	3.0	6.1	9.2	14.4	24.7	25.6	12.1	.0	1.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	73	69	65	58	53	51	50	58.8	788
06009	74	69	67	60	55	52	49	60.1	544
12015	73	67	64	58	53	50	49	58.3	691
18021	68	65	63	57	52	50	49	57.3	516
TOT	74	68	65	58	53	51	49	58.6	2509

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	8.4	22.0	34.2	27.3	8.1	75	395
06009	.0	12.6	35.5	29.0	18.5	4.4	71	341
12015	.0	6.7	27.4	37.4	23.1	5.4	74	372
18021	.0	4.7	22.3	31.1	32.7	9.1	76	318
TOT	0	116	381	472	361	96	74	1426

SEPTEMBER

PERIOD: (PRIMARY) 1912-1970  
(OVER-ALL) 1855-1970

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	TOT FOG	N FOG	NO FOG
9/10	.0	.0	.0	.0	.1	.1	.0	2	.0	.1
7/8	.0	.0	.1	.1	.1	.0	.0	3	.0	.2
6	.0	.0	.0	.0	.3	.1	.0	5	.0	.3
5	.0	.0	.3	.2	.1	.1	.0	10	.0	.6
4	.0	.0	.1	.1	.4	.1	.0	10	.0	.6
3	.0	.1	.2	.6	.6	.1	.0	25	.0	1.6
2	.0	.1	1.0	1.1	.8	.1	.0	48	.0	3.0
1	.0	.1	1.5	1.9	1.0	.0	.0	71	.0	4.5
0	.0	.1	2.5	2.4	.8	.0	.1	92	.0	5.8
-1	.1	1.0	3.9	3.7	.8	.0	.0	149	.1	9.4
-2	.0	1.2	4.4	2.8	.2	.1	.1	137	.0	8.7
-3	.1	2.1	6.6	3.5	.2	.0	.0	198	.1	12.5
-4	.1	3.0	7.5	2.4	.1	.1	.0	207	.1	13.1
-5	.1	2.3	6.8	1.3	.0	.1	.0	169	.0	10.7
-6	.1	3.3	5.6	.4	.0	.0	.0	149	.0	9.4
-7/-8	.4	5.4	4.8	.3	.0	.0	.0	172	.0	10.9
-9/-10	.4	3.2	1.4	.1	.0	.0	.0	80	.0	5.1
-11/-13	.8	1.8	.3	.0	.0	.0	.0	46	.0	2.9
-14/-16	.3	.1	.0	.0	.0	.0	.0	5	.0	.3
TOTAL	37		738		83		2	1578	3	1575
PCT	2.3	24.0	46.8	20.8	5.3	.7	.1	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1970

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
CL	.2	.3	.0	.0	.0	.0	.4	.2	.5	.0	.0	.0	.0	.7
1-2	.0	.4	.0	.0	.0	.0	.4	.2	.7	.1	.0	.0	.0	.9
3-4	.1	.3	.1	.0	.0	.0	.5	.0	.3	.3	.0	.0	.0	.7
5-6	.0	.2	.2	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.1	.4	.0	.0	.0	1.8	.3	1.5	.4	.0	.0	.0	2.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
CL	.0	.4	.0	.0	.0	.0	.4	.2	.8	.0	.0	.0	.0	1.0
1-2	.0	2.0	.4	.0	.0	.0	2.4	.2	2.1	.8	.0	.0	.0	3.1
3-4	.0	1.2	1.1	.2	.0	.0	2.4	.0	1.3	2.3	.0	.0	.0	3.6
5-6	.0	.2	.8	.0	.0	.0	.9	.0	.3	2.3	.0	.0	.0	2.7
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.7	.5	.0	.0	1.1
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.8	2.3	.3	.0	.0	6.4	.3	4.6	6.3	.7	.0	.0	11.9

PERIOD: (OVER-ALL) 1963-1970

SEPTEMBER

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TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.3	1.2	.0	.0	.0	.0		1.5	.7	.0	.0	.0	.0	.0		.8
1-2	.3	3.7	1.0	.0	.0	.0		5.0	4.5	1.6	.0	.0	.0	.0		6.1
3-4	.0	1.7	4.1	.2	.0	.0		6.0	3.2	3.2	.3	.0	.0	.0		6.7
5-6	.0	.7	1.6	.0	.0	.0		2.3	.0	3.3	.8	.2	.0	.0		4.7
7	.0	.0	.7	.4	.0	.0		1.1	.0	1.6	1.0	.5	.0	.0		3.1
8-9	.0	.0	.2	.5	.0	.0		.6	.0	.0	.2	.7	.5	.0		1.3
10-11	.0	.0	.0	.1	.0	.0		.1	.0	.0	.0	.2	.0	.0		.2
12	.0	.0	.0	.2	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.2	.0	.0		.4
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.6	7.2	7.7	1.3	.0	.0		16.8	.1	8.9	9.8	3.1	1.3	.0		23.2

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.1	.4	.0	.0	.0	.0		.5	.0	.2	.0	.0	.0	.0		.2	
1-2	.1	2.8	2.2	.0	.0	.0		5.1	.0	.9	.6	.0	.0	.0		1.5	
3-4	.0	2.9	3.9	.8	.0	.0		7.6	.0	1.0	1.1	.2	.0	.0		2.2	
5-6	.0	.3	5.1	2.5	.2	.0		8.1	.0	.1	2.2	.5	.1	.0		2.9	
7	.0	.0	1.1	1.1	.0	.0		2.5	.0	.0	.7	.8	.0	.0		1.5	
8-9	.0	.0	.8	1.1	.0	.0		1.7	.0	.0	.0	.2	.3	.0		.5	
10-11	.0	.0	.0	.7	.0	.0		.7	.0	.0	.0	.4	.0	.0		.4	
12	.0	.2	.0	.3	.0	.0		.5	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.3	.1	.0		.4	.0	.0	.0	.0	.2	.0		.2	
17-19	.0	.0	.0	.0	.2	.0		.2	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.1	.0		.1	.0	.0	.0	.0	.0	.2		.2	
23-25	.0	.0	.2	.0	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.2	7.0	13.0	6.7	.6	.0		27.6	.0	2.2	4.6	2.0	.6	.2		9.5	99.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.0	4.7	.0	.0	.0	.0		6.7
1-2	.8	17.1	6.5	.0	.0	.0		24.4
3-4	.2	11.7	15.9	1.7	.0	.0		29.4
5-6	.0	2.3	15.3	3.6	.5	.0		21.7
7	.0	.3	5.0	3.8	.5	.0		9.6
8-9	.0	.0	1.2	2.6	.8	.0		4.6
10-11	.0	.0	.0	1.4	.0	.0		1.4
12	.0	.2	.0	.6	.0	.0		.8
13-16	.0	.0	.0	.5	.5	.0		.9
17-19	.0	.0	.0	.0	.2	.0		.2
20-22	.0	.0	.0	.0	.2	.2		.3
23-25	.0	.0	.2	.0	.0	.0		.2
26-32	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0
TOT PCT	2.9	36.3	44.2	14.1	2.4	.2		100.0

659

PERIOD: (OVER-ALL) 1949-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.4	3.5	4.6	2.8	1.1	.8	.0	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	134
6-7	.0	.2	2.0	4.8	5.3	2.3	1.6	.7	.3	.2	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	163
8-9	.0	.0	1.0	3.0	5.9	4.9	3.2	2.7	3.2	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	223
10-11	.0	.3	.3	1.4	3.2	3.7	2.8	2.1	3.5	.4	.5	.0	.1	.0	.0	.0	.0	.0	.0	.0	169
12-13	.0	.0	.1	.9	.8	1.6	1.3	2.1	2.4	.1	.2	.2	.4	.0	.0	.0	.0	.0	.0	.0	93
>13	.0	.0	.0	.3	.5	.9	1.1	.3	.9	.0	.1	.1	.4	.0	.0	.0	.0	.0	.0	.0	43
INDPT	.7	.7	.9	1.3	2.6	1.0	.9	.5	.9	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	89
TOTAL	14	43	81	133	177	139	100	78	105	13	10	7	9	0	0	0	0	0	0	0	914
PCT	2.1	4.7	8.9	14.6	19.4	15.2	10.9	8.5	11.5	1.4	1.1	.8	1.0	.0	.0	.0	.0	.0	.0	.0	100.0

OCTOBER

PERIOD: (PRIMARY) 1910-1971  
(OVER-ALL) 1854-1971AREA 0017 CAPE LEEUWIN  
33.85 114.5E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
N	1.5	5.6	1.5	.0	.0	.0	.0	8.6	.0	.0	.0	.0	.0	.0	91.4
NE	3.4	1.1	.6	.0	.0	.0	.0	5.0	.0	1.4	2.2	.0	.0	.0	92.4
E	2.3	1.9	1.1	.0	.0	.0	.0	5.3	.0	1.3	.0	.0	1.1	.0	92.2
SE	.9	1.4	1.3	.0	.0	.0	.0	3.6	.5	1.4	.0	.0	.1	.0	94.3
S	1.6	5.0	1.8	.0	.0	.0	.2	8.7	2.8	.8	.4	.0	.4	.0	86.9
SW	1.1	11.5	.6	.0	.0	.0	.3	13.6	2.4	.0	.5	.0	.0	.0	83.5
W	4.0	11.1	1.7	.0	.0	.0	.1	16.9	4.0	.4	.3	.0	.4	.2	78.1
NW	7.5	13.3	.9	.0	.0	.0	.0	21.7	1.3	1.4	.2	.0	.0	.5	76.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0	.0	.0	87.5
TOT PCT	2.6	7.8	1.3	.0	.0	.0	.1	11.7	2.2	.7	.4	.0	.3	.1	85.0
TOT OBS:	2369														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
00003	4.1	8.3	1.3	.0	.0	.0	.0	13.6	1.7	.0	.4	.0	.3	.0	83.9
06009	1.4	7.8	1.2	.0	.0	.0	.2	10.5	2.1	.0	.0	.0	.6	.0	86.7
12015	1.7	8.1	1.2	.0	.0	.0	.2	11.2	1.7	1.6	.6	.0	.2	.2	85.3
18021	2.7	6.1	1.5	.0	.0	.0	.2	10.5	3.3	1.1	.6	.0	.2	.2	84.5
TOT PCT	2.5	7.6	1.3	.0	.0	.0	.1	11.6	2.2	.7	.4	.0	.3	.1	85.0
TOT OBS:	2369														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	TOTAL DBS			00	03	06	09	12	15	18	21
N	.2	1.3	.9	.2	.0	*	2.7	11.2	3.6	2.7	1.8	2.2	2.0	4.5	1.4	3.2	
NE	.3	2.1	1.4	.2	.0	*	4.0	10.5	6.1	4.6	3.1	2.1	1.9	4.5	3.2	6.6	
E	.2	2.8	3.5	.5	.1	.0	7.2	12.8	7.4	8.1	8.6	5.0	5.9	7.7	8.5	6.2	
SE	.5	4.3	5.4	1.5	*	.0	11.7	13.3	10.8	11.3	10.1	12.9	12.4	11.2	14.1	11.2	
S	1.0	7.3	8.0	2.4	.4	.1	19.2	13.8	17.8	15.3	22.2	13.2	21.7	20.8	22.8	18.3	
SW	1.3	7.6	8.6	4.3	1.3	.2	23.3	15.8	23.2	21.6	21.5	28.3	26.5	21.4	18.5	23.8	
W	.8	5.5	8.3	5.2	1.5	.1	21.4	17.4	18.9	23.8	23.9	24.7	21.1	19.9	21.2	19.5	
NW	.2	2.8	3.8	2.2	.5	*	9.5	16.9	11.1	10.8	8.2	10.3	7.7	7.9	9.7	10.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.1						1.1	.0	1.1	1.8	.7	1.4	.8	2.2	.5	.5	
TOT DBS	189	1142	1348	555	132	15	3381	14.9	660	392	409	291	661	279	365	324	
TOT PCT	5.6	33.8	39.9	16.4	3.9	.4	100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+			00	03	06	12	18
N	.8	1.4	.4	.1	*	2.7	11.2	3.3	2.0	2.7	2.3	
NE	1.2	2.1	.6	.1	*	4.0	10.5	5.6	2.6	2.7	4.8	
E	1.1	4.0	2.0	.1	.0	7.2	12.8	7.7	7.1	6.4	7.4	
SE	1.8	6.0	3.5	.4	.0	11.7	13.3	11.0	11.3	12.0	12.7	
S	3.5	9.2	5.2	1.1	.2	19.2	13.8	16.8	18.5	21.4	20.5	
SW	4.2	9.3	6.6	2.7	.5	23.3	15.8	22.6	24.3	25.0	21.0	
W	2.5	8.6	6.3	3.6	.5	21.4	17.4	20.7	24.2	20.8	20.4	
NW	1.3	3.8	2.9	1.5	.1	9.5	16.9	11.0	9.1	7.8	10.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	1.1					1.1	.0	1.3	1.0	1.2	.6	
TOT DBS	589	1495	927	322	48	3381	14.9	1052	700	940	689	
TOT PCT	17.4	44.2	27.4	9.5	1.4	100.0		100.0	100.0	100.0	100.0	



PERIOD: (PRIMARY) 1910-1971  
(OVER-ALL) 1854-1971

# OCTOBER

AREA 0017 CAPE LEEUWIN  
93.85 114.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	1.3	5.6	32.7	39.9	15.5	4.6	.4	14.7	100.0	1052
0600	1.0	4.1	30.7	43.7	15.6	4.6	.3	15.2	100.0	700
1200	1.2	4.3	36.2	36.2	17.7	3.8	.7	14.9	100.0	940
1800	.6	3.6	35.3	40.9	17.0	2.3	.3	14.6	100.0	689
TOT	36	153	1142	1348	555	132	15	14.9		3381
PCT	1.1	4.5	33.8	39.9	16.4	3.9	.4	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	.6	.5	1.1	.2		4.4
NE	1.0	.5	1.5	.5		4.4
E	3.6	1.2	2.6	.8		3.5
SE	3.2	2.1	4.9	2.1		4.6
S	4.4	4.4	9.2	4.2		4.9
SW	2.9	4.4	10.7	4.1		5.3
W	1.9	4.4	10.0	3.7		5.4
NW	.9	1.5	3.8	2.5		5.8
VAR	.0	.0	.0	.0		.0
CALM	.0	.3	.1	.1		5.2
TOT OBS	223	230	526	219	1198	5.0
TOT PCT	18.6	19.2	43.9	18.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.1	.1	.2	.2	.1	.0	.0	1.7	
NE	.0	.0	.0	.1	.3	.4	.3	.2	.0	.0	2.3	
E	.0	.0	.0	.1	.8	.6	.5	.1	.0	.0	5.9	
SE	.0	.0	.1	.8	2.1	1.5	.8	.3	.0	.0	4.7	
S	.0	.0	.5	2.4	4.9	2.8	.9	.3	.1	.0	10.3	
SW	.0	.1	.3	2.8	4.2	3.0	1.4	1.1	.2	.0	9.1	
W	.0	.1	.1	2.4	3.7	1.8	2.4	.7	.1	.1	8.6	
NW	.0	.0	.1	.6	1.7	1.0	.9	.3	.0	.0	4.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.3	
TOT OBS	0	2	14	112	213	138	89	37	5	1	587	1198
TOT PCT	.0	.2	1.2	9.3	17.8	11.5	7.4	3.1	.4	.1	49.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.4	.4	.5	.5	.5	.5	.5	.5
>6000	2.9	3.5	3.6	3.6	3.6	3.6	3.6	3.6
>5500	9.3	10.9	11.0	11.0	11.0	11.0	11.0	11.0
>5000	19.5	22.2	22.5	22.5	22.5	22.5	22.5	22.5
>4500	33.8	39.5	40.1	40.4	40.5	40.5	40.5	40.5
>4000	40.0	47.9	49.5	49.8	49.8	49.8	49.8	49.8
>3500	40.5	49.0	50.7	50.9	51.0	51.0	51.0	51.0
>3000	40.5	49.1	50.8	51.1	51.2	51.2	51.2	51.2
>2500	40.5	49.1	50.8	51.1	51.2	51.2	51.2	51.2
>2000	40.5	49.1	50.8	51.1	51.2	51.2	51.2	51.2
TOTAL	493	597	618	621	622	622	622	622

TOTAL NUMBER OF OBS: 1216

PCT FREQ NH <5/8: 48.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
8.8	8.9	9.1	10.1	11.4	9.2	14.0	13.8	15.1	.0	1347

PERIOD: (PRIMARY) 1910-1971  
(OVER-ALL) 1854-1971

OCTUBER

AREA 0017 CAPE LEEUWIN  
33.8S 114.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	*	.0	.0	*	*	.0	.0	.0	.0	.0	.1
	TOT %	.0	*	.0	.0	*	*	.0	.0	.0	.0	.0	.1
1/2<1	PCP	.0	.0	.0	*	.2	.1	.1	.0	.0	.0	.4	.4
	NO PCP	.0	*	.0	.0	.1	.2	.1	*	.0	.0	.4	.4
	TOT %	.0	*	.0	*	.3	.2	.2	*	.0	.0	.9	.9
1<2	PCP	.0	.0	.0	.0	.0	*	.1	*	.0	.0	.2	.2
	NO PCP	.0	.0	*	.0	.1	*	.1	*	.0	.0	.3	.3
	TOT %	.0	.0	*	.0	.1	.1	.2	.1	.0	.0	.5	.5
2<5	PCP	*	*	*	*	.1	.1	.2	.1	.0	.0	.6	.6
	NO PCP	.0	*	.0	.1	.1	.2	.2	.1	.0	.0	.8	.8
	TOT %	*	.1	*	.1	.2	.3	.4	.2	.0	.0	1.4	1.4
5<10	PCP	.2	.2	.2	.3	.9	2.4	2.5	1.5	.0	.0	8.1	8.1
	NO PCP	1.4	1.4	2.3	4.0	5.8	8.5	6.5	2.5	.0	*	32.5	32.5
	TOT %	1.6	1.6	2.5	4.3	6.7	10.9	8.9	4.0	.0	*	40.5	40.5
10+	PCP	.1	*	.1	.1	.5	.7	.5	.4	.0	.0	2.4	2.4
	NO PCP	1.2	2.2	4.8	7.6	12.1	11.6	9.8	4.7	.0	.3	54.3	54.3
	TOT %	1.3	2.2	4.9	7.6	12.6	12.3	10.4	5.1	.0	.3	56.7	56.7
TOT OBS													2306
TOT PCT		2.9	3.9	7.5	12.0	20.0	23.8	20.1	9.4	.0	.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	*	*
	11-21	.0	.0	.0	.0	*	*	.0	.0	.0	.0	*	*
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	*	.0	.0	*	*	.0	.0	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	*	.0	.0	.1	.0	*	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.1	.1	.1	*	.0	.0	.4	.4
	22+	.0	.0	.0	*	.1	.1	.1	.0	.0	.0	.3	.3
	TOT %	.0	*	.0	*	.3	.2	.2	*	.0	.0	.9	.9
1<2	0-3	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	*	*
	4-10	.0	.0	.0	.0	.1	*	.1	*	.0	.0	.2	.2
	11-21	.0	.0	*	*	*	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	*	.1	*	.0	.0	.2	.2
	TOT %	.0	.0	*	*	.1	.1	.2	.1	.0	.0	.5	.5
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	*	.0	.1	*	*	.0	.0	.0	.0	.2	.2
	11-21	.0	*	*	*	.1	*	.1	.1	.0	.0	.4	.4
	22+	*	.0	.0	.0	.1	.2	.3	.2	.0	.0	.9	.9
	TOT %	*	.1	*	.1	.2	.3	.5	.3	.0	.0	1.5	1.5
5<10	0-3	.2	.1	*	.1	.3	.3	.2	.1	.0	*	1.3	1.3
	4-10	.8	.7	1.1	1.7	2.2	3.1	2.0	1.1	.0		12.8	12.8
	11-21	.4	.5	1.1	1.6	2.5	4.0	3.6	1.6	.0		15.3	15.3
	22+	*	.1	.1	.5	1.1	2.7	2.6	1.1	.0		8.2	8.2
	TOT %	1.4	1.4	2.4	3.9	6.1	10.0	8.4	3.8	.0	*	37.6	37.6
10+	0-3	.1	.1	.1	.3	.6	.7	.4	*	.0	.5	2.8	2.8
	4-10	.6	1.1	1.8	2.7	5.6	4.9	3.1	1.9	.0		21.7	21.7
	11-21	.5	1.0	2.6	3.6	5.4	5.4	4.6	2.2	.0		25.3	25.3
	22+	.2	.1	.4	1.0	1.3	2.3	3.1	1.2	.0		9.7	9.7
	TOT %	1.4	2.2	5.0	7.7	12.9	13.2	11.3	5.3	.0	.5	59.6	59.6
TOT OBS													2546
TOT PCT		2.8	3.7	7.5	11.8	19.7	23.9	20.6	9.6	.0	.5	100.0	

## OCTOBER

PERIOD: (PRIMARY) 1910-1971  
(OVER-ALL) 1854-1971

AREA 0017 CAPE LEEUWIN  
33.85 114.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL ANY HGT	NH <5/8 OBS	TOTAL OBS
00003	.0	.0	2.0	11.1	21.1	11.1	9.1	3.5	1.2	.0	59.6	40.4	342
06009	.0	.0	.6	8.3	14.7	11.0	7.4	2.1	.0	.0	44.2	55.8	326
12015	.0	.0	.7	9.8	13.5	10.1	4.7	3.4	.3	.3	42.8	57.2	297
18021	.0	.0	1.0	6.6	19.3	12.0	7.0	3.0	.0	.0	48.8	51.2	301
TOT PCT	0 .0	2 .2	14 1.1	114 9.0	218 17.2	140 11.1	90 7.1	38 3.0	5 .4	1 .1	622 49.1	644 50.9	1266 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.8	.8	2.2	36.5	59.7	764
06009	.0	.5	.7	.4	33.8	64.6	560
12015	.0	1.1	.3	1.8	45.5	51.3	718
18021	.4	.7	.4	.9	35.3	62.4	564
TOT PCT	2 .1	21 .8	14 .5	37 1.4	994 38.1	1538 59.0	2606 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	2.8	16.8	45.9	37.3	327
06009	.0	.9	9.8	35.8	54.4	316
12015	.0	.7	12.2	37.6	55.2	288
18021	.0	1.1	8.4	43.2	48.4	285
TOT PCT	0 .0	17 1.4	145 11.9	480 39.5	591 48.6	1216 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.1	.1	.2	.3	.1	.1	15	.9
70/74	.0	.0	.1	.1	.5	.9	.9	.7	53	3.1
65/69	.0	.0	.1	.4	1.5	2.8	3.0	1.1	150	8.9
60/64	.0	.0	.1	2.2	7.4	14.2	12.6	3.7	687	40.8
55/59	.0	.0	.4	3.3	10.1	12.3	9.8	2.8	652	38.7
50/54	.0	.0	.1	.7	2.0	2.1	2.3	.5	127	7.5
45/49	.0	.0	.0	.0	.0	.0	.1	.0	1	.1
TOTAL	0	0	18	114	366	551	486	150	1685	100.0
PCT	.0	.0	1.1	6.8	21.7	32.7	28.8	8.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	.1	.0	.0	.1	.3	.2	.1	.0	.0	.0
70/74	.1	.3	.0	.3	1.3	1.1	.1	.1	.0	.1
65/69	.5	.5	1.3	.9	2.0	1.2	1.4	1.0	.0	.1
60/64	1.1	1.4	3.5	5.9	6.4	8.6	8.9	4.6	.0	.3
55/59	.6	1.0	2.2	4.3	8.9	9.8	9.1	2.8	.0	.0
50/54	.1	.1	.3	.3	2.6	3.2	.8	.3	.0	.0
45/49	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
TOTAL	2.4	3.2	7.4	11.8	21.6	24.1	20.4	8.7	.0	.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	77	74	58	60	54	51	46	60.2	1025
06009	76	72	58	61	55	52	50	61.1	687
12015	77	74	58	59	54	51	49	59.8	943
18021	73	67	58	58	53	51	49	58.5	704
TOT	77	72	67	60	54	51	46	59.9	3359

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	7.0	22.2	33.4	29.0	8.4	76	500
06009	.0	12.9	29.0	33.8	19.0	5.3	72	379
12015	.0	5.6	19.7	31.3	33.3	10.1	77	447
18021	.0	6.5	16.1	33.1	32.8	11.5	77	384
TOT	0	134	371	562	492	151	76	1710

## OCTOBER

PERIOD: (PRIMARY) 1910-1971  
(OVER-ALL) 1854-1971

TABLE 17

AREA 0017 CAPE LEEUWIN  
33.85 114.5E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	48	49	53	57	61	65	69	73	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.0	.1	*	3	.0	.1
7/8	.0	.0	.0	.0	.0	.0	.1	.1	5	.0	.2
6	.0	.0	.0	*	.1	.1	.1	.0	9	.0	.4
5	.0	.0	.0	.0	.2	.6	.4	.0	25	.0	1.2
4	.0	.0	.0	.1	.6	.8	.2	*	35	.0	1.7
3	.0	.0	.1	.5	1.1	.9	.2	.0	58	.0	2.9
2	.0	.0	.2	.5	1.3	1.4	.1	.2	77	*	3.8
1	.0	.0	.1	.5	2.6	1.5	*	*	97	.1	4.7
0	.0	.0	.4	2.1	4.4	.9	*	*	161	*	8.0
-1	.0	.0	.4	3.5	5.2	.9	*	.0	202	*	10.0
-2	.0	.0	.8	4.1	4.5	.4	*	.0	200	*	9.9
-3	.0	.1	.9	5.6	5.3	.1	.0	.0	247	.0	12.3
-4	.0	*	1.8	6.5	3.3	*	.0	.0	235	.0	11.7
-5	.0	.2	2.1	6.1	1.3	.1	*	.0	200	*	9.9
-6	.0	.3	2.4	4.4	.3	.0	*	.0	151	*	7.5
-7/-8	.0	.3	4.1	4.5	.4	.0	.0	.0	188	.0	9.4
-9/-10	.0	.5	2.5	.6	.0	*	.0	.0	74	.0	3.7
-11/-13	.0	.5	1.1	*	.0	.0	.0	.0	33	.0	1.6
-14/-16	*	.2	*	.0	.0	.0	.0	.0	6	.0	.3
TOTAL	1	46	346	792	619	160	10	2006	100.0	.4	99.6
PCT	*	2.3	17.2	39.5	30.9	8.0	1.6	.5			

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.1	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.6
1-2	.0	.5	.1	.0	.0	.0	.7	.0	.7	.6	.0	.0	.0	1.2
3-4	.0	.5	.4	.1	.0	.0	1.0	.0	.3	.6	.1	.0	.0	.9
5-6	.0	.0	.1	.1	.0	.0	.3	.0	.3	.2	.1	.0	.0	.7
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	*	.0	.0	.0	*
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.1	.1	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.2	.9	.4	.0	.0	2.6	.0	1.8	1.4	.2	.0	.0	3.4

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.1	.1	.0	.0	.0	.0	.3	.2	.2	.0	.0	.0	.0	.4
1-2	.0	1.6	.4	.0	.0	.0	2.1	.0	2.3	1.0	.0	.0	.0	3.3
3-4	.0	1.4	1.0	.2	.0	.0	2.6	.0	1.4	2.5	.0	.0	.0	3.9
5-6	.0	.4	1.6	.2	.0	.0	2.2	.0	.2	3.1	.5	.0	.0	3.7
7	.0	.0	1.2	.4	.0	.0	1.6	.0	.0	.7	.4	.0	.0	1.1
8-9	.0	.0	.3	.0	.0	.0	.3	.0	.0	.2	.7	.0	.0	.8
10-11	.0	.0	.0	.1	.1	.0	.3	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	3.6	4.5	1.0	.1	.0	9.3	.2	4.1	7.5	1.8	.0	.0	13.5

PERIOD: (OVER-ALL) 1963-1971

OCTOBER

AREA 0017 CAPE LEEUWIN  
33.85 114.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+		
<1	.3	1.1	.0	.0	.0	.0	1.3	.5	.8	.0	.0	.0	.0	1.2	
1-2	.0	5.4	.6	.0	.0	.0	6.0	.1	3.8	1.5	.0	.0	.0	5.4	
3-4	.0	3.3	3.6	.7	.0	.0	7.6	.1	2.5	2.6	.1	.0	.0	5.3	
5-6	.0	.3	2.0	.5	.1	.0	2.9	.0	.3	2.8	1.0	*	.0	4.2	
7	.1	1.1	1.3	.9	.0	.0	2.5	*	.1	1.2	.8	.1	.0	2.3	
8-9	.0	.0	.3	.3	.1	.0	.9	.0	.0	.1	.5	.2	.0	.8	
10-11	.0	.0	.1	.7	.1	.0	1.0	.0	.0	.5	.5	.1	.0	1.2	
12	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.2	.1	.0	.3	
13-16	.0	.0	.0	.4	.0	.0	.4	.0	.0	*	.2	.1	.0	.4	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.1	.0	.6	
20-22	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	10.2	7.9	4.2	.7	.0	23.4	.8	7.5	8.6	3.8	.9	.0	21.5	

HGT	W							NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+		
<1	.3	.4	.0	.0	.0	.0	.7	.1	.1	.0	.0	.0	.0	.3	
1-2	.0	1.9	.4	.0	.0	.0	2.2	.1	1.2	.5	.0	.0	.0	1.8	
3-4	.0	1.1	3.2	.4	.0	.0	4.7	.0	.7	1.6	*	.0	.0	2.3	
5-6	.0	.1	1.6	.4	.0	.0	2.2	.0	.3	.7	.0	.0	.0	1.0	
7	.0	.1	1.3	1.7	.3	.0	3.5	.0	.0	.4	.6	.0	.0	1.0	
8-9	.0	.0	.8	.7	.3	.0	1.8	.0	.0	.4	.3	.0	.0	.7	
10-11	.0	.0	.5	1.0	.2	.0	1.7	.0	.0	.1	.1	.1	.0	.3	
12	.0	.0	.1	.4	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.1	.4	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	
23-25	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	*	.0	.0	*	
26-32	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	*	.0	.0	*	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	3.7	7.9	5.0	1.1	.0	18.1	.3	2.3	3.6	1.1	.4	.0	7.6	

TOTAL PCT														
99.6														

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.3	3.6	.0	.0	.0	.0	6.0	
1-2	.3	17.4	4.9	.0	.0	.0	22.6	
3-4	.1	11.2	15.2	1.6	.0	.0	28.2	
5-6	.0	1.9	12.0	2.9	.1	.0	17.0	
7	.1	.4	6.2	4.8	.4	.0	12.0	
8-9	.0	.0	2.0	2.6	.6	.0	5.2	
10-11	.0	.0	1.3	2.8	.7	.0	4.8	
12	.0	.0	.0	.9	.4	.0	1.3	
13-16	.0	.0	.1	1.0	.1	.0	1.3	
17-19	.0	.0	.0	.4	.3	.0	.7	
20-22	.0	.0	.0	.0	.4	.0	.4	
23-25	.0	.0	.0	.1	.0	.0	.1	
26-32	.0	.0	.0	.3	.0	.0	.3	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.9	34.5	41.9	17.4	3.2	.0	100.0	689

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.2	3.6	5.6	3.8	2.5	.8	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	177	4
6-7	.0	.0	3.6	6.3	5.6	3.5	3.2	1.1	1.6	.3	.3	.1	.2	.0	.0	.0	.0	.0	.0	258	8
8-9	.0	.0	.4	4.9	6.4	3.7	2.6	2.1	1.9	.9	.3	.2	.0	.0	.0	.0	.0	.0	.0	234	9
10-11	.0	.0	.5	1.1	1.5	4.0	2.4	1.7	2.8	.7	.3	.2	.2	.0	.0	.0	.0	.0	.0	154	10
12-13	.0	.0	.2	.6	.6	.9	2.3	.9	2.0	.4	.4	.1	.0	.0	.0	.0	.0	.0	.0	84	11
>13	.0	.0	.0	.1	.2	.2	.3	.4	.8	.3	.0	.2	.4	.0	.0	.0	.0	.0	.0	29	15
INDFT	.7	.8	1.0	.8	1.5	.7	.6	.2	.8	.1	.1	.1	.8	.0	.0	.0	.0	.0	.0	74	7
TOTAL	.9	4.4	11.3	17.6	18.3	13.8	11.7	6.6	10.1	2.7	1.4	.9	.8	.0	.0	.0	.0	.0	.0	1305	8
PCT	.9	4.4	11.2	17.5	18.2	13.7	11.6	6.6	10.0	2.7	1.4	.9	.8	.0	.0	.0	.0	.0	.0	109.3	



## NOVEMBER

PERIOD: (PRIMARY) 1910-1969  
(OVER-ALL) 1854-1969

AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WE4
N	4.4	.0	.0	.0	.0	.0	.0	4.4	.0	5.5	.0	.0	.0	.0	92.3
NE	5.2	.5	.0	.0	.0	.0	.0	6.7	2.1	.0	1.0	.0	.0	.0	90.2
E	3.2	1.5	1.1	.0	.0	.0	.0	5.8	.5	1.3	1.0	.0	1.0	.0	90.4
SE	1.5	.5	1.8	.0	.0	.0	.0	3.7	1.1	1.7	1.6	.0	.4	.0	91.7
S	.8	2.1	1.3	.0	.0	.0	.0	4.2	.5	.6	.3	.3	.3	.0	93.9
SW	1.9	6.6	1.6	.0	.0	.0	.0	9.9	1.6	1.1	.3	.0	.0	.0	87.7
W	1.7	8.6	.7	.0	.0	.0	.0	11.0	3.8	.2	1.1	.0	.7	.0	83.1
NW	2.1	4.4	.0	.0	.0	.0	.7	7.2	3.0	.3	.3	.0	.7	.0	88.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	16.7	.0	.0	.0	.0	16.7	.0	.0	.0	.0	.0	.0	83.3
TOT PCT	1.8	4.1	1.2	.0	.0	.0	.1	7.1	1.7	1.0	.8	.1	.4	.0	89.2
TOT OBS:	1966														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WE4
0000	1.7	4.8	1.1	.0	.0	.0	.0	7.4	2.6	.2	.7	.0	.0	.0	89.1
0600	1.2	2.9	2.1	.0	.0	.0	.0	6.2	1.4	.4	.8	.0	1.0	.0	90.1
1200	2.5	4.9	.7	.0	.0	.0	.0	8.2	1.6	1.6	.9	.2	.4	.0	87.7
1800	1.6	3.2	.9	.0	.0	.0	.2	6.0	.9	1.6	.7	.0	.2	.0	90.8
TOT PCT	1.8	4.0	1.2	.0	.0	.0	*	7.0	1.7	.9	.8	*	.4	.0	89.3
TOT OBS:	2010														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL ORS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	1.0	.8	.1	*	.0		2.0	11.1	2.6	2.9	.7	2.1	1.3	.8	3.2	2.8	
NE	.1	1.2	.8	.1	.0	.0		2.2	10.8	3.1	3.6	1.5	1.2	1.4	1.0	2.0	3.1	
E	.1	2.6	3.6	1.0	.1	.0		7.5	14.1	10.7	7.3	6.9	5.8	5.4	7.4	4.6	11.4	
SE	.1	6.7	8.1	2.1	.4	*		17.5	14.1	15.4	16.6	19.1	14.9	17.4	21.0	19.2	18.3	
S	.5	8.8	9.1	2.2	.3	.1		21.1	13.2	17.7	18.3	20.2	22.3	24.9	21.8	22.0	21.5	
SW	.5	9.3	9.1	3.3	.4	.1		22.7	13.6	23.5	23.8	18.8	24.5	22.5	25.5	20.4	23.7	
W	.3	5.9	6.7	3.7	.9	.1		19.5	16.2	18.2	19.3	25.1	21.2	20.5	15.9	19.5	14.0	
NW	.2	2.6	2.9	1.0	.2	.0		6.8	14.3	7.7	7.3	7.1	6.9	6.0	5.4	8.6	4.8	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.7							.7	.0	1.1	.9	.5	1.0	.5	1.2	.6	.3	
TOT OBS	86	1174	1321	418	68	9	3076		14.0	565	348	404	292	598	251	329	289	
TOT PCT	2.8	38.2	42.9	13.6	2.2	.3		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL ORS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.6	.9	.4	*	.0		2.0	11.1	2.7	1.3	1.2	3.0
NE	.7	1.1	.4	*	.0		2.2	10.8	3.3	1.4	1.3	2.5
E	1.0	3.8	2.4	.3	*		7.5	14.1	9.4	6.4	6.0	7.8
SE	2.2	9.4	5.0	.9	*		17.5	14.1	15.9	17.3	18.5	18.8
S	3.2	11.5	5.4	.9	.1		21.1	13.2	17.9	21.1	24.0	21.8
SW	4.2	11.5	5.3	1.6	.1		22.7	13.6	23.6	21.2	23.4	21.9
W	2.3	8.8	6.1	2.1	.3		19.5	16.2	18.6	23.5	19.2	16.9
NW	1.1	3.3	1.8	.6	*		6.8	14.3	7.6	7.0	5.8	6.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	.7						.7	.0	1.0	.7	.7	.5
TOT OBS	491	1546	824	197	18	3076		14.0	913	696	849	618
TOT PCT	16.0	50.3	26.8	6.4	.6		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1910-1969  
(OVER-ALL) 1854-1969

# NOVEMBER

AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	1.0	2.1	38.4	41.0	14.0	2.3	.3	13.9	100.0	913
06009	.7	2.2	35.9	43.1	14.8	2.9	.4	14.4	100.0	896
12015	.7	1.6	38.2	43.9	12.8	2.5	.2	14.0	100.0	849
18021	.5	2.4	40.3	44.3	11.3	1.0	.2	13.4	100.0	618
TOT	23	63	1174	1321	418	68	9	14.0		3076
PCT	.7	2.0	38.2	42.9	13.6	2.2	.3	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8	TOTAL OBS	MEAN CLOUD COVER
N	.9	.2	.5	.1		3.3
NE	.7	.4	.8	.4		4.5
E	2.4	.9	2.3	1.4		4.5
SE	5.5	2.3	7.8	3.8		4.7
S	4.8	3.6	8.6	3.5		4.7
SW	2.9	4.8	8.3	2.8		5.0
W	2.1	4.4	9.7	5.7		5.6
NW	2.2	1.1	2.7	2.0		4.8
VAR	.0	.0	.0	.0		.0
CALM	.1	.1	.1	.1		5.2
TOT OBS	247	204	468	227	1146	4.9
TOT PCT	21.6	17.8	40.8	19.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.1	.1	.1	.0	.1	.1	1.2	
NE	.0	.0	.0	.2	.2	.1	.2	.0	.1	.0	1.5	
E	.0	.0	.1	.4	1.2	.6	.3	.0	.0	.1	4.3	
SE	.0	.0	.2	.8	4.0	2.3	1.2	.2	.0	.2	10.6	
S	.0	.0	.1	1.5	3.4	2.5	2.0	.6	.2	.2	10.2	
SW	.1	.0	.2	1.1	3.2	1.9	1.3	.7	.0	.1	10.2	
W	.0	.0	.4	2.2	5.0	2.4	1.3	.5	.2	.0	9.9	
NW	.0	.0	.0	.2	1.4	1.5	.4	.1	.0	.0	4.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.3	
TOT OBS	1	0	11	76	212	130	79	23	6	602	1146	
TOT PCT	.1	.0	1.0	6.6	18.5	11.3	6.9	2.0	.5	.5	52.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>OR>6500	.8	.9	1.0	1.0	1.0	1.0	1.0	1.0
>OR>5000	2.4	3.0	3.1	3.1	3.1	3.1	3.1	3.1
>OR>3500	8.2	9.6	9.9	9.9	9.9	9.9	9.9	9.9
>OR>2000	18.2	20.9	21.4	21.4	21.4	21.4	21.4	21.4
>OR>1000	34.2	39.0	39.8	39.8	39.8	39.8	39.8	39.8
>OR>600	38.8	45.3	46.3	46.4	46.4	46.4	46.4	46.4
>OR>300	39.2	46.0	47.2	47.3	47.3	47.3	47.3	47.3
>OR>150	39.2	46.0	47.2	47.3	47.3	47.3	47.3	47.3
>OR>0	39.2	46.0	47.2	47.4	47.4	47.4	47.4	47.4
TOTAL	456	535	549	551	551	551	551	551

TOTAL NUMBER OF OBS: 1162

PCT FREQ NH <5/8: 52.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	8 OBS	TOTAL OBS
	8.9	11.2	10.9	11.9	9.4	8.5	8.9	13.7	16.5	.1	1264

PERIOD: (PRIMARY) 1910-1969  
(OVER-ALL) 1854-1969

NOVEMBER

AREA 0017 CAPE LEEUWIN  
33.9S 114.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	*	.1	.0	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	*	.1	.0	.0	.0	.0	.0	.0	.0	.1	.1
1/2<1	PCP	.0	.0	.0	.1	.1	.0	.1	.0	.0	.0	.2	.2
	NO PCP	.1	.1	.0	.1	.1	.1	.2	*	.0	.0	.6	.6
	TOT %	.1	.1	.0	.2	.1	.1	.2	*	.0	.0	.8	.8
1<2	PCP	.1	.0	.0	.0	.1	.1	.1	.0	.0	.0	.3	.3
	NO PCP	.1	.0	*	*	.1	.0	.1	.1	.0	.0	.3	.3
	TOT %	.1	.0	*	*	.1	.1	.2	.1	.0	.0	.6	.6
2<5	PCP	.0	.0	.1	.1	.1	.1	.2	.0	.0	.0	.5	.5
	NO PCP	*	.0	.1	.1	.1	.0	.2	.1	.0	.0	.5	.5
	TOT %	*	.0	.1	.1	.2	.1	.3	.1	.0	.0	1.0	1.0
5<10	PCP	.1	.1	.2	.4	.4	1.2	1.3	.5	.0	.1	4.3	4.3
	NO PCP	.9	.6	2.8	5.8	6.4	6.3	6.1	1.8	.0	.1	30.9	30.9
	TOT %	.9	.7	3.0	6.2	6.8	7.5	7.4	2.3	.0	.2	35.1	35.1
10+	PCP	.0	.1	.2	.2	.2	.5	.7	.0	.0	.0	1.9	1.9
	NO PCP	1.2	1.6	4.4	12.1	12.6	11.7	11.9	4.8	.0	.2	60.5	60.5
	TOT %	1.2	1.7	4.6	12.3	12.8	12.2	12.6	4.8	.0	.2	62.4	62.4
TOT OBS													
TOT PCT													
		2.3	2.5	7.8	18.8	20.1	20.1	20.8	7.3	.0	.3	100.0	1966

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	*	.1	.0	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	*	.1	.0	.0	.0	.0	.0	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	*	.0	*	.1	*	*	.0	.0	.0	.3	.3
	11-21	.0	.0	.0	.1	*	.1	.1	*	.0	.0	.4	.4
	22+	*	.0	.0	.0	.0	.0	*	.0	.0	.0	.1	.1
	TOT %	*	*	.0	.1	.1	.1	.2	*	.0	.0	.7	.7
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	*	.0	.0	.0	.0	.1	.1	*	.0	.0	.2	.2
	11-21	.0	.0	*	*	.1	*	*	.0	.0	.0	.2	.2
	22+	*	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	TOT %	.1	.0	*	*	.1	.1	.1	*	.0	.0	.5	.5
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.1	.0	*	.0	.0	.2	.2
	11-21	*	.0	.0	*	.1	.1	.3	*	.0	.0	.5	.5
	22+	.0	.0	.1	*	.1	.1	.1	*	.0	.0	.4	.4
	TOT %	*	.0	.1	.1	.3	.2	.3	.1	.0	.0	1.1	1.1
5<10	0-3	.0	.0	.1	.2	.3	.2	.1	.0	.0	.1	1.0	1.0
	4-10	.5	.5	.9	2.1	2.1	2.7	1.6	.6	.0	.0	10.9	10.9
	11-21	.3	.2	1.3	2.5	3.1	2.8	3.4	.9	.0	.0	14.5	14.5
	22+	.0	*	.5	1.2	.8	1.1	1.7	.5	.0	.0	5.7	5.7
	TOT %	.8	.7	2.7	5.9	6.2	6.8	6.7	2.1	.0	.1	32.1	32.1
10+	0-3	.1	.1	.1	.0	.2	.3	.1	.2	.0	.3	1.4	1.4
	4-10	.5	.9	2.0	4.6	6.6	6.0	3.6	1.8	.0	.0	25.9	25.9
	11-21	.5	.5	2.5	6.3	5.3	5.1	5.9	2.2	.0	.0	28.3	28.3
	22+	.0	.1	.6	1.9	1.6	2.1	2.9	.6	.0	.0	9.8	9.8
	TOT %	1.1	1.6	5.2	12.8	13.7	13.5	12.5	4.8	.0	.3	65.4	65.4
TOT OBS													
TOT PCT													
		2.1	2.4	8.1	19.0	20.5	20.7	19.9	7.0	.0	.4	100.0	2194

PERIOD: (PRIMARY) 1910-1969  
(OVER-ALL) 1854-1969

# NOVEMBER

AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.0	.0	1.7	6.7	21.2	12.5	6.1	3.0	.7	.7	52.5	47.5	297
06009	.3	.0	.6	4.3	12.8	10.1	5.2	1.5	.3	.0	35.1	64.9	328
12015	.0	.0	.7	6.9	18.4	10.9	6.9	2.6	.0	1.0	47.4	52.6	304
18021	.0	.0	.7	7.7	18.3	10.9	8.1	.7	1.1	.4	47.9	52.1	284
TOT	1	0	11	77	213	134	79	24	6	6	551	662	1213
PCT	.1	.0	.9	6.3	17.6	11.0	6.5	2.0	.5	.5	45.4	54.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	1.2	.7	1.5	36.3	60.9	606
06009	.0	.4	1.1	1.0	27.8	69.7	525
12015	.2	.8	.6	1.1	36.0	61.2	627
18021	.2	.4	.2	.8	27.7	70.6	480
TOT	2	16	17	25	725	1458	2238
PCT	.1	.7	.5	1.1	32.4	65.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOUR (GMT)	<150 <3000	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.0	1.8	9.5	45.3	45.3	285
06009	.3	1.0	6.4	30.5	63.0	311
12015	.0	.7	9.2	40.1	50.7	294
18021	.0	.7	9.2	40.8	50.0	272
TOT	1	12	99	453	610	1162
PCT	.1	1.0	8.5	39.0	52.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
74/79	.0	.0	.0	.1	.1	.1	.0	.0	4	.3
70/74	.0	.0	.1	.1	.9	.9	.1	.1	93	2.2
66/69	.0	.1	1.1	9.1	4.8	5.3	2.2	24.7	16.4	.4
60/64	.0	.0	1.1	2.8	13.8	20.0	13.9	4.7	823	54.8
55/59	.0	.0	.2	2.6	6.9	8.2	4.7	1.9	369	24.6
50/54	.0	.0	.0	.0	.5	.6	.7	.0	27	1.8
TOTAL	0	1	6	100	381	517	372	126	1503	100.0
PCT	.0	.1	.4	6.7	25.3	34.4	24.8	8.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
74/79	.0	.1	.1	*	*	.0	.0	.0	.0	.0
70/74	*	.3	.4	.3	.2	.3	.5	.1	.0	.0
66/69	.6	.8	1.2	2.4	3.1	2.2	3.8	2.2	.0	.1
60/64	.9	1.1	3.5	11.5	10.5	10.4	12.6	3.9	.0	.2
55/59	.2	.4	2.3	4.5	6.0	7.0	3.5	.5	.0	.1
50/54	.0	.0	.1	.1	.7	.7	.2	.0	.0	.0
TOTAL	1.7	2.7	7.7	18.9	20.5	20.6	20.6	6.8	.0	.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	76	73	68	67	56	54	50	62.0	883
06009	79	74	70	63	58	55	50	63.4	673
12015	76	70	67	61	56	54	51	61.4	851
18021	70	67	65	60	55	53	51	60.1	633
TOT	79	72	68	62	56	54	50	61.8	3040

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	8.7	22.8	36.4	23.5	8.7	75	404		
06009	.0	10.2	33.6	31.8	19.4	5.0	72	381		
12015	.0	4.2	23.5	34.0	29.3	9.0	76	409		
18021	.0	5.0	20.9	35.3	27.6	11.2	77	340		
TOT	0	108	387	527	383	129	75	1534		

PERIOD: (PRIMARY) 1910-1969  
(OVER-ALL) 1854-1969

NOVEMBER

AREA 0017 CAPE LEEUWIN  
33.9S 114.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	NO FOG
14/16	.0	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
11/13	.0	.0	.0	.0	.0	.1	.1	.0	2	.0	.1
9/10	.0	.0	.0	.1	.0	.1	.1	.0	3	.0	.2
7/8	.0	.0	.0	.1	.1	.2	.1	.0	6	.0	.3
6	.0	.0	.0	.1	.2	.2	.2	.0	12	.0	.7
5	.0	.0	.0	.1	.2	.7	.0	.0	18	.0	1.0
4	.0	.0	.0	.2	.5	.4	.1	.0	20	.0	1.2
3	.0	.0	.1	.5	1.4	.6	.0	.0	46	.0	2.7
2	.0	.0	.2	1.7	1.7	.4	.0	.0	68	.0	3.9
1	.0	.0	.5	2.1	3.6	.3	.0	.0	115	.0	6.7
0	.0	.1	1.1	5.0	3.9	.1	.1	.0	177	.2	10.1
-1	.0	.2	1.9	7.4	1.6	.1	.0	.0	191	.2	10.8
-2	.0	.5	3.0	8.7	1.6	.0	.1	.0	239	.1	13.7
-3	.0	.2	3.7	7.6	.6	.0	.0	.0	211	.1	12.1
-4	.1	.3	4.7	5.3	.2	.0	.0	.0	184	.1	10.5
-5	.0	.6	5.4	3.1	.1	.0	.0	.0	159	.1	9.1
-6	.0	1.0	3.9	1.4	.1	.0	.0	.0	110	.1	6.3
-7/-8	.1	2.0	4.1	.6	.0	.0	.0	.0	116	.1	6.7
-9/-10	.2	.8	.8	.2	.0	.0	.0	.0	35	.0	2.0
-11/-13	.1	.3	.2	.1	.0	.0	.0	.0	11	.0	.6
-14/-16	.1	.1	.0	.0	.0	.0	.0	.0	3	.0	.2
TOTAL	8	513	763	273	55	1	1727	16	1711		
PCT	.5	6.1	29.7	44.2	15.8	3.2	.5	.1	100.0	.9	99.1

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
1-2	.0	.4	.1	.0	.0	.0	.2	.0	.9	.0	.0	.0	.0	1.1
3-4	.0	.5	.1	.0	.0	.0	.7	.0	.0	.3	.0	.0	.0	.3
5-6	.0	.0	.1	.0	.0	.0	.1	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.9	.4	.0	.0	.0	1.2	.1	1.0	1.0	.0	.0	.0	2.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.1	.0	.0	.0	.0	.1	.0	.3	.0	.0	.0	.0	.3
1-2	.0	1.4	.7	.0	.0	.0	2.1	.0	2.9	.5	.0	.0	.0	3.4
3-4	.0	.5	1.6	.0	.0	.0	2.2	.0	2.3	3.5	.4	.0	.0	6.3
5-6	.0	.0	.7	.2	.0	.0	1.0	.0	.8	4.5	.4	.0	.0	5.7
7	.0	.0	.1	.3	.3	.0	.7	.0	.0	1.7	.6	.0	.0	2.3
8-9	.0	.0	.2	.1	.0	.0	.3	.0	.0	.7	.7	.0	.0	1.4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.9	.6	.0	1.6
12	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1	.1	.0	.3
13-16	.0	.0	.0	.3	.0	.0	.3	.0	.1	.0	.5	.0	.0	.7
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.1	3.4	1.0	.4	.0	6.9	.0	6.5	11.0	3.6	1.1	.1	22.4



PERIOD: (OVER-ALL) 1963-1969

NOVEMBER

AREA 0017 CAPE LEEUWIN  
33.95 114.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.3	1.0	.0	.0	.0	.0		1.2	.7	.1	.0	.0	.0	.0		2.9
1-2	.1	3.2	.4	.0	.0	.0		3.7	.0	2.4	.4	.0	.0	.0		2.8
3-4	.0	3.5	4.0	.0	.0	.0		7.4	.1	2.4	3.6	.0	.0	.0		6.2
5-6	.0	.5	4.1	.8	.0	.0		5.5	.0	.4	2.0	1.2	.0	.0		3.7
7	.0	.1	.7	.4	.0	.0		1.2	.0	.1	.7	.3	.0	.0		1.2
8-9	.0	.0	.2	.4	.1	.0		.7	.0	.0	.2	.2	.0	.0		.4
10-11	.0	.0	.0	.1	.1	.0		.3	.0	.0	.0	.0	.1	.0		.1
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.1	.0		.2
13-16	.0	.0	.0	.1	.0	.0		.1	.0	.0	.0	.1	.0	.0		.1
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.2	.0	.0		.2
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.1	.1	.3		.5	.0	.0	.0	.0	.0	.3		.3
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.4	8.3	9.5	1.9	.4	.3		20.8	.2	6.0	7.1	2.1	.3	.3		16.1

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.5	.0	.0	.0	.0		.5	.0	.2	.0	.0	.0	.0		.2	
1-2	.0	3.0	.7	.0	.0	.0		3.6	.0	1.6	.3	.0	.0	.0		1.9	
3-4	.0	1.9	3.0	.4	.0	.0		5.4	.0	1.0	1.5	.1	.0	.0		2.7	
5-6	.0	.7	3.6	1.0	.0	.0		5.3	.0	.3	1.6	.3	.0	.0		2.3	
7	.0	.1	1.4	1.0	.1	.0		2.6	.0	.0	.6	.0	.1	.0		.8	
8-9	.0	.0	1.0	1.3	.0	.1		2.4	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.4	.1	.0		.6	.0	.0	.0	.3	.0	.0		.3	
12	.0	.0	.0	.7	.4	.0		1.1	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.1	.0	.0		.1	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.2	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	6.2	9.7	5.1	.7	.1		21.9	.0	3.2	4.1	.8	.1	.0		8.2	99.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.0	3.3	.1	.0	.0	.0	4.5	
1-2	.6	15.5	3.0	.0	.0	.0	19.1	
3-4	.1	12.0	17.5	1.0	.0	.0	30.7	
5-6	.0	2.8	17.2	3.9	.0	.0	23.9	
7	.0	.4	5.2	2.5	.6	.0	8.7	
8-9	.0	.0	2.3	2.6	.1	.1	5.2	
10-11	.0	.0	.1	1.7	1.0	.0	2.9	
12	.0	.0	.0	1.0	.7	.0	1.7	
13-16	.0	.1	.0	1.2	.0	.0	1.3	
17-19	.0	.0	.0	.0	.3	.0	.3	
20-22	.0	.0	.0	.0	.0	.1	.1	
23-25	.0	.0	.0	.4	.0	.0	.4	
26-32	.0	.0	.0	.0	.1	.0	.1	
33-40	.0	.0	.0	.1	.1	.6	.9	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.7	34.2	45.7	14.5	3.0	.9	100.0	690

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	3.6	7.0	3.2	1.1	.9	.6	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	167
6-7	.0	.1	2.8	6.9	5.1	2.7	2.4	.3	.5	.1	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	207
8-9	.0	.0	.7	4.6	4.5	5.3	4.3	1.5	1.1	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	215
10-11	.0	.1	.1	1.1	3.4	2.8	3.5	2.6	1.3	.5	.2	.2	.1	.0	.0	.0	.0	.0	.0	.0	155
12-13	.0	.0	.2	.5	1.1	1.3	2.0	2.7	1.7	.9	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	107
>13	.0	.0	.0	.0	.3	.1	.8	1.2	1.5	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	41
INDET	.6	.5	1.1	1.5	1.0	.5	.9	.2	.1	.0	.0	.1	.0	.6	.0	.0	.0	.0	.0	.0	70
TOTAL	11	42	115	171	140	132	140	82	63	19	10	9	3	6	0	0	0	0	0	0	963
PCT	1.1	4.4	11.9	17.8	16.6	13.7	14.5	8.5	6.5	2.0	1.0	.9	.3	.6	.0	.0	.0	.0	.0	.0	100.0

DECEMBER

PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1854-1972AREA 0017 CAPE LEEUWIN  
33.85 114.5E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WE	
N	.0	5.3	.0	.0	.0	.0	.0	5.3	14.5	.0	.0	.0	.0	.0	80.3	
NE	2.8	.0	.0	.0	.0	.0	.0	2.8	.0	4.1	.0	.0	5.5	.0	87.6	
E	.6	1.9	.6	.0	.0	.0	.0	3.1	1.5	2.5	.6	.0	3.2	.0	89.2	
SE	1.0	1.2	.4	.0	.0	.0	.0	2.5	.6	.6	3.3	.0	1.5	.0	91.5	
S	.1	2.0	1.2	.0	.0	.0	.0	3.4	.8	.5	.5	.0	.6	.0	94.2	
SW	1.1	5.4	.8	.0	.0	.0	.0	7.3	1.0	.2	.4	.0	.6	.0	90.5	
W	1.7	9.1	.7	.0	.0	.0	.0	11.5	2.0	.0	.8	.0	.5	.0	85.2	
NW	4.1	6.3	.0	.0	.0	.0	.0	10.4	4.1	.0	.0	.0	.6	.0	84.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	.0	.0	.0	92.9	
TOT PCT	1.0	3.8	.7	.0	.0	.0	.0	5.5	1.3	.6	1.1	.0	1.1	.0	90.4	
TOT OBS:	2043															

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
0000	.7	4.0	1.0	.0	.0	.0	.0	5.7	2.6	.3	1.0	.0	1.6	.0	88.7
0600	1.1	2.7	.2	.0	.0	.0	.0	4.0	.6	.0	.6	.0	1.3	.0	93.5
1200	.9	4.3	.5	.0	.0	.0	.0	5.7	.4	.9	1.4	.0	.9	.0	90.7
1800	1.3	3.9	1.3	.0	.0	.0	.0	6.5	1.3	1.5	1.3	.0	.4	.0	89.0
TOT PCT	1.0	3.8	.8	.0	.0	.0	.0	5.5	1.3	.7	1.1	.0	1.1	.0	90.4
TOT OBS:	2072														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.2	.4	.3	*	*	.0	.9	10.4	1.3	.9	.4	.7	.6	.4	1.5	1.2		
NE	.2	1.1	.8	.2	.1	.0	2.3	11.7	3.5	3.3	1.9	1.5	.9	1.0	2.0	4.0		
E	.2	2.8	4.4	1.2	.1	.0	8.7	14.1	11.9	9.6	9.3	4.3	6.9	8.4	6.4	11.0		
SE	.2	5.3	12.3	2.7	*	.0	20.6	14.7	20.4	20.3	21.0	18.8	17.1	22.7	22.5	24.7		
S	.5	8.0	12.3	2.6	.1	.0	23.4	13.7	19.8	19.4	23.6	26.5	28.3	23.4	27.5	17.4		
SW	.3	9.2	9.3	2.7	.6	*	22.2	14.1	20.2	22.6	20.5	25.9	24.8	20.5	22.5	20.5		
W	.3	4.8	6.9	3.5	.8	.0	16.3	16.4	16.8	16.0	20.3	16.3	14.7	17.0	13.7	15.5		
NW	.3	1.3	2.1	1.1	.2	.0	4.9	16.0	4.9	7.4	2.9	6.0	5.8	5.7	2.2	4.5		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	.8						.8	.0	.8	.6	.3	.0	.9	.8	1.7	1.0		
TOT OBS	92	1000	1477	426	57	1	3053	14.4	595	338	397	269	579	244	344	287		
TOT PCT	3.0	32.8	48.4	14.0	1.9	*		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	.3	.4	.2	*	.0		.9	10.4	1.3	.9	1.2	.6	.5	1.3
NE	.7	1.0	.4	.1	.0		2.3	11.7	3.5	3.3	1.7	1.0	2.9	
E	1.1	4.4	2.9	.3	.0		8.7	14.1	11.1	7.2	7.3	8.5		
SE	1.8	10.4	7.9	.5	.0		20.6	14.7	20.5	20.1	18.8	23.5		
S	2.9	12.7	6.8	.9	.0		23.4	13.7	19.7	24.7	26.9	22.9		
SW	2.7	12.4	5.4	1.6	.2		22.2	14.1	21.1	22.7	23.5	21.6		
W	1.9	7.1	5.1	2.0	.1		16.3	16.4	16.5	18.7	15.4	14.5		
NW	.7	2.0	1.6	.6	*		4.9	16.0	5.8	4.2	5.8	3.2		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	.8						.8	.0	.8	.2	.9	1.4		
TOT OBS	392	1538	926	185	12	3053	14.4		933	666	823	631		
TOT PCT	12.8	50.4	30.3	6.1	.4		100.0		100.0	100.0	100.0	100.0		

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PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1854-1972AREA 0017 CAPE LEEUWIN  
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TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+		
00003	.8	3.2	35.4	46.1	17.1	2.5	.0	13.9	100.0
06009	.2	1.1	31.2	51.8	13.8	1.8	.2	14.9	100.0
12015	.9	1.5	28.7	49.6	17.7	1.7	.0	15.2	100.0
18021	1.4	3.0	35.8	46.6	11.9	1.3	.0	13.5	100.0
TOT	24	68	1000	1477	426	57	1	14.4	3053
PCT	.8	2.2	32.8	48.4	14.0	1.9	*	100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 8 OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.2	.3	.3	.3	5.5	
NE	.7	.2	.6	.5	4.7	
E	3.9	1.7	2.4	1.3	3.7	
SE	6.9	2.8	6.3	3.6	4.2	
S	7.9	4.1	10.5	3.7	4.4	
SW	4.8	4.1	9.0	3.9	5.0	
W	2.2	2.6	7.9	3.3	5.5	
NW	.3	.7	1.6	.5	5.2	
VAR	.0	.0	.0	.0	.0	
CALM	.4	.1	.3	.7	3.9	
TOT OBS	327	199	469	209	1204	
TOT PCT	27.2	16.5	39.0	17.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+ ANY HGT	NH <5/8 TOTAL OBS
N	.0	.0	.0	.0	.1	.4	.1	.0	.0	.0	.4
NE	.0	.0	.0	.0	.3	.2	.2	.1	.0	.0	1.2
E	.0	.0	.0	.4	1.0	.9	.5	.1	.0	.1	6.5
SE	.0	.0	.0	.9	2.9	2.5	1.5	.2	.1	.0	11.3
S	.1	.0	.1	.8	5.1	3.6	1.3	.5	.1	.0	14.7
SW	.0	.0	.2	.9	3.9	2.8	2.0	.3	.2	.1	11.5
W	.1	.0	.1	1.2	3.0	2.0	1.1	.2	.1	.0	8.1
NW	.0	.0	.0	.1	.7	.6	*	.1	.0	.0	1.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.1	.2	.1	.1	.0	.0	.0	.6
TOT OBS	2	0	5	22	207	157	82	19	7	2	671
TOT PCT	.2	.0	.4	4.3	17.2	13.0	6.8	1.6	.6	.2	55.7

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.5	.7	.7	.7	.7	.7	.7	.7
>4000	2.1	2.4	2.4	2.4	2.4	2.4	2.4	2.4
>3500	7.1	8.9	9.1	9.1	9.1	9.1	9.1	9.1
>2000	18.9	21.5	22.2	22.2	22.2	22.2	22.2	22.2
>1000	33.3	38.0	39.2	39.2	39.2	39.2	39.2	39.2
>600	37.1	42.4	43.5	43.5	43.5	43.5	43.5	43.5
>300	37.2	42.7	43.8	43.9	43.9	43.9	43.9	43.9
>150	37.2	42.7	43.8	43.9	43.9	43.9	43.9	43.9
>0	37.2	42.7	43.8	44.0	44.0	44.0	44.1	44.1
TOTAL	453	520	534	536	536	536	537	537

TOTAL NUMBER OF OBS: 1218

PCT FREQ NH &lt;5/8: 55.9

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
12.3	11.9	11.9	9.6	10.1	7.9	11.2	11.3	13.5	1307

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TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
2<5	PCP	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2
5<10	PCP	.0	.0	.3	.4	.6	1.2	1.2	.3	.0	.0	.0	4.0
	NO PCP	.4	.6	2.4	7.2	7.6	7.0	3.8	1.5	.0	.1	.1	30.5
	TOT %	.4	.6	2.7	7.6	8.1	8.2	5.1	1.8	.0	.1	.1	34.6
10+	PCP	.0	.0	.0	.0	.3	.3	.3	.0	.0	.0	.0	1.0
	NO PCP	.4	1.0	5.7	12.2	16.9	13.9	8.9	1.9	.0	.5	.5	61.6
	TOT %	.4	1.0	5.7	12.3	17.1	14.2	9.3	2.0	.0	.5	.5	62.6
TOT OBS													
TOT PCT													
		.9	1.8	8.8	20.5	25.5	23.0	14.9	3.9	.0	.7	100.0	2043

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3
	TOT %	.0	.0	.0	.4	.1	.1	.0	.0	.0	.0	.0	.7
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2
	11-21	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.3
	22+	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.1	.3	.1	.2	.2	.1	.0	.0	.0	.0	1.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.4
	22+	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.3
	TOT %	.0	.0	.0	.0	.0	.3	.4	.1	.0	.0	.0	1.0
5<10	0-3	.1	.0	.1	.1	.2	.0	.1	.1	.0	.1	.1	.7
	4-10	.1	.3	.7	1.9	2.2	3.1	1.2	.2	.0	.0	.0	9.8
	11-21	.2	.2	1.3	3.7	3.9	3.0	1.8	.8	.0	.0	.0	14.8
	22+	.0	.1	.3	1.1	1.0	1.3	1.8	.7	.0	.0	.0	6.3
	TOT %	.4	.5	2.4	6.8	7.3	7.5	4.8	1.7	.0	.1	.1	31.5
10+	0-3	.0	.1	.1	.1	.3	.3	.1	.1	.0	.0	.0	1.7
	4-10	.3	.6	2.2	3.3	6.4	6.7	3.4	.8	.0	.0	.0	23.7
	11-21	.1	.4	2.6	8.2	8.8	6.3	5.3	1.3	.0	.0	.0	33.1
	22+	.0	.0	.9	1.4	1.8	1.5	1.4	.3	.0	.0	.0	7.2
	TOT %	.4	1.2	5.8	13.1	17.2	14.8	10.2	2.5	.0	.0	.0	65.7
TOT OBS													
TOT PCT													
		.9	1.8	8.5	20.4	24.8	22.8	15.7	4.4	.0	.7	100.0	2297

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PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1854-1972

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TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.3	.0	.3	5.6	17.3	13.3	8.6	2.8	.6	.0	48.8	51.2	324
06009	.0	.0	.9	3.3	11.0	12.5	7.1	.3	.6	.0	35.7	64.3	336
12015	.3	.0	.3	3.9	19.7	11.2	5.9	1.3	.3	.7	43.8	56.3	304
18021	.0	.0	.0	4.0	17.8	13.2	4.0	2.0	.7	.0	41.6	58.4	303
TOT PCT	2 .2	0 .0	5 .4	53 4.2	207 16.3	159 12.5	82 6.5	20 1.6	7 .6	2 .2	537 42.4	730 57.6	1267 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.6	2.0	1.8	33.0	62.5	658
06009	.0	.6	.8	.4	25.5	72.8	525
12015	.2	1.1	.8	.8	36.0	61.1	630
18021	.2	.2	.4	.8	30.2	68.2	513
TOT PCT	3 .1	15 .6	24 1.0	23 1.0	733 31.5	1528 65.7	2326 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.3	.6	9.0	41.7	49.4	312
06009	.0	.9	4.7	32.6	62.7	322
12015	.3	.7	5.8	39.9	54.3	291
18021	.0	.3	5.5	38.2	56.3	293
TOT PCT	2 .2	8 .7	76 6.2	463 38.0	679 55.7	1218 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.2	.2	.0	.0	.0	6	.4
75/79	.0	.0	.1	.3	.2	.4	.1	.0	17	1.1
70/74	.0	.1	.1	.4	1.7	2.6	1.7	.7	115	7.3
65/69	.0	.0	.1	.7	5.7	12.5	11.9	5.4	567	36.2
60/64	.0	.0	.4	2.2	13.2	15.7	11.4	4.7	745	47.6
55/59	.0	.0	.0	.6	2.4	2.4	1.2	.7	114	7.3
50/54	.0	.0	.0	.0	.0	.0	.1	.0	1	.1
TOTAL	0	1	9	70	366	525	414	180	1565	100.0
PCT	.0	.1	.6	4.5	23.4	33.5	26.5	11.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80	.0	.0	.0	.0	.2	.2	*	.0	.0	.0
75	.0	.1	.1	.3	.2	.4	.0	.0	.0	.0
70	.1	1.2	1.9	2.3	1.0	.7	.1	.0	.1	.1
65	.5	1.0	4.2	6.8	8.9	5.8	6.4	2.4	.0	.3
60	.2	.7	3.4	9.2	10.5	14.0	7.7	1.3	.0	.5
55	*	.1	.3	1.2	2.4	2.3	.8	.1	.0	.0
50	.0	.0	.0	.0	.0	*	*	.0	.0	.0
TOT	.9	2.0	9.3	19.4	24.5	23.6	15.6	3.9	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	82	77	72	64	59	57	56	64.6	909
06009	85	77	73	66	60	58	56	65.1	647
12015	85	75	71	64	59	56	50	64.0	875
18021	76	71	69	61	58	56	55	62.8	637
TOT	85	76	71	64	59	57	50	64.4	3018

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	5.9	27.2	29.3	25.1	12.4	7.6	4.26		
06009	.0	7.3	29.0	36.3	20.4	7.0	7.3	372		
12015	.0	4.8	17.4	30.0	29.5	12.4	7.7	420		
18021	.0	2.4	19.5	32.7	31.4	14.1	7.8	370		
TOT	0	81	369	532	423	183	76	1588		



PERIOD: (PRIMARY) 1912-1972  
(OVER-ALL) 1854-1972

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TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	# FOG	WD FOG
14/16	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
11/13	.0	.0	.0	.0	.0	.1	.1	.1	.2	.1	8	.0	.4
9/10	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	6	.0	.3
7/8	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	6	.0	.3
6	.0	.0	.0	.0	.1	.1	.4	.1	.0	.0	11	.0	.6
5	.0	.0	.0	.0	.2	.6	.5	.2	.0	.1	29	.1	1.5
4	.0	.0	.0	.1	.5	.6	.9	.4	.0	.0	36	.1	1.9
3	.0	.0	.1	.3	1.3	1.7	.7	.0	.0	.0	76	.2	4.0
2	.0	.0	.2	.8	2.8	2.1	.4	.0	.0	.0	114	.2	6.0
1	.0	.0	.1	1.5	3.2	2.0	.1	.1	.0	.0	128	.1	6.9
0	.0	.1	.4	2.7	4.8	1.3	.1	.0	.0	.0	171	.0	9.3
-1	.0	.0	.9	6.0	7.2	.5	.0	.0	.0	.0	269	.2	14.5
-2	.0	.0	1.0	7.0	6.1	.3	.0	.0	.0	.0	264	.2	14.2
-3	.0	.0	1.3	7.6	3.3	.1	.1	.0	.0	.0	225	.1	12.1
-4	.0	.1	1.4	6.5	1.3	.0	.1	.0	.0	.0	172	.1	9.3
-5	.0	.0	3.0	4.8	.4	.0	.0	.0	.0	.0	150	.0	8.2
-6	.0	.1	1.8	2.3	.1	.0	.0	.0	.0	.0	79	.1	4.2
-7/-8	.0	.1	2.2	1.5	.1	.0	.0	.0	.0	.0	71	.0	3.9
-9/-10	.0	.1	.9	.2	.0	.0	.0	.0	.0	.0	20	.0	1.1
-11/-13	.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	3	.0	.2
-14/-16	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1	8	243	759	579	175	55	3	2	1840	21	1819	
PCT	.1	.4	13.2	41.3	31.5	9.5	3.0	.8	.2	.1	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1943-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3
1-2	.0	.5	.2	.0	.0	.0	.7	.0	.4	.0	.0	.0	.0	.4
3-4	.0	.0	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.1
5-6	.0	.0	.4	.0	.0	.0	.4	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.5	.7	.0	.0	.0	1.2	.0	.8	.5	.0	.2	.0	1.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.2	.7	.0	.0	.0	.0	.9
1-2	.0	.6	.3	.0	.0	.0	.9	.0	1.6	1.3	.0	.0	.0	3.0
3-4	.0	1.3	2.3	.3	.0	.0	3.9	.0	2.0	5.2	.0	.0	.0	7.2
5-6	.2	.3	2.6	.3	.0	.0	3.3	.0	.4	3.6	.6	.0	.0	4.6
7	.0	.2	1.0	.9	.0	.0	2.0	.0	.0	1.0	1.3	.0	.0	2.3
8-9	.0	.0	.0	.3	.0	.0	.3	.0	.0	1.6	.3	.0	.0	1.9
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.5	6.2	1.8	.2	.0	10.8	.2	4.7	12.7	2.7	.0	.0	20.3

PERIOD: (OVER-ALL) 1963-1972

DECEMBER

AREA 0017 CAPE LEFUWIN  
33.85 114.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S								SW							
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.2	1.0	.0	.0	.0	.0	1.2		.0	1.1	.0	.0	.0	.0	1.1	
1-2	.0	3.5	1.1	.0	.0	.0	4.6		.2	4.4	1.1	.0	.0	.0	5.6	
3-4	.0	3.9	3.9	.5	.0	.0	8.3		.0	3.5	3.0	.9	.0	.0	7.4	
5-6	.0	.7	5.7	1.0	.2	.0	7.6		.0	.9	2.5	.4	.0	.0	3.8	
7	.0	.0	.9	1.5	.0	.0	2.5		.0	.0	.6	.4	.0	.0	1.1	
8-9	.0	.0	.6	.3	.0	.0	.9		.0	.0	.5	.7	.0	.0	1.2	
10-11	.0	.0	.0	.2	.1	.0	.3		.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.2	.0	.0	.2	
13-16	.0	.0	.0	.1	.0	.0	.1		.0	.0	.0	.2	.2	.0	.3	
17-19	.0	.0	.0	.1	.0	.0	.1		.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	9.2	12.2	3.7	.3	.0	25.5		.2	9.8	7.8	2.7	.2	.0	20.8	

HGT	W								NW								TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.2	.6	.0	.0	.0	.0	.8		.0	.0	.0	.0	.0	.0	.0	.0	
1-2	.2	2.9	.8	.0	.0	.0	3.9		.0	.4	.0	.0	.0	.0	.0	.5	
3-4	.0	1.8	2.6	.1	.0	.0	4.5		.0	.1	.7	.2	.0	.0	.0	1.0	
5-6	.0	.0	3.4	.3	.0	.0	3.7		.0	.3	1.2	.0	.0	.0	.0	1.6	
7	.0	.0	1.2	.5	.0	.0	1.7		.0	.0	.3	.0	.0	.0	.0	.4	
8-9	.0	.0	.2	.3	.1	.0	.7		.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	5.3	8.2	1.3	.1	.0	15.2		.0	.9	2.4	.2	.0	.0	3.4	98.7	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.1	4.1	.0	.0	.0	.0	6.2	
1-2	.3	14.3	4.7	.0	.0	.0	19.3	
3-4	.0	12.5	17.9	2.0	.0	.0	32.4	
5-6	.2	2.6	19.7	2.6	.2	.0	25.2	
7	.0	.2	5.2	4.7	.0	.0	10.1	
8-9	.0	.0	2.9	2.0	.3	.0	5.2	
10-11	.0	.0	.0	.3	.2	.0	.5	
12	.0	.0	.0	.2	.0	.0	.2	
13-16	.0	.0	.0	.5	.3	.0	.8	
17-19	.0	.0	.0	.2	.0	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.6	33.7	50.4	12.4	1.0	.0	100.0	615

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
46	.6	4.6	9.5	6.7	1.8	.8	.8	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	240	4
6-7	.0	.1	4.2	8.8	7.4	3.3	2.7	1.1	1.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	277	7
8-9	.0	.0	1.5	5.2	4.9	2.9	3.0	1.1	1.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	201	8
10-11	.0	.1	.3	1.1	1.5	3.0	2.3	1.9	1.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	.0	111	9
12-13	.0	.0	.5	.2	.8	1.0	.8	.5	.6	.4	.2	.1	.0	.0	.0	.0	.0	.0	.0	51	10
513	.0	.0	.0	.3	.5	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	8
INDET	.4	.9	1.5	1.5	1.3	.3	.6	.5	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	88	5
TOTAL	10	55	167	228	174	119	99	51	41	8	4	2	0	0	0	0	0	0	0	958	7
PCT	1.0	5.7	17.4	23.8	18.2	12.4	10.3	5.3	4.3	.8	.4	.2	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1910-1972  
(OVER-ALL) 1854-1972

ANNUAL

AREA 0017 CAPE LEEUWIN  
33.95 114.6F

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	3.4	4.2	1.0	.0	.0	.0	.4	9.0	3.0	1.5	.9	.0	2.5	.0	84.3
NE	3.7	1.6	.9	.0	.0	.0	.0	6.2	.9	2.0	1.7	.0	1.7	.0	87.9
E	1.9	2.1	1.0	.0	.0	.0	.0	5.0	1.1	1.3	1.1	*	1.3	*	90.3
SE	1.6	2.7	1.1	.0	.0	.0	.1	5.4	1.4	.9	1.5	*	.8	*	90.1
S	1.8	5.3	1.3	.0	.0	.0	.1	8.4	2.3	.4	.8	*	.7	*	87.4
SW	2.5	8.6	1.3	.0	.0	.0	.1	12.4	3.0	.6	.6	*	.4	*	83.2
W	3.5	11.2	1.5	.0	.0	.0	.2	16.2	4.1	.7	.8	.0	.6	*	77.9
NW	5.7	8.6	.9	.0	.0	.0	.2	15.4	3.7	1.1	.7	.0	.6	*	79.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.9	.8	2.8	.0	.0	.0	.0	5.4	2.0	.4	2.2	.0	.4	.0	89.5
TOT PCT	3.0	6.5	1.2	.0	.0	.0	.1	10.7	2.6	.9	1.0	*	.8	*	84.2
TOT OBS: 24839															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	3.2	6.8	1.3	.0	.0	.0	.1	11.4	2.6	.4	1.1	*	1.0	*	83.7
06009	2.5	5.9	1.0	.0	.0	.0	.2	9.6	3.1	.2	.9	*	.8	*	85.5
12015	3.0	7.0	1.2	.0	.0	.0	.1	11.2	1.9	1.3	1.3	*	.9	*	83.7
18021	2.9	5.9	1.4	.0	.0	.0	.1	10.2	2.9	1.8	.9	.0	.5	*	84.2
TOT PCT	2.9	6.4	1.2	.0	.0	.0	.1	10.7	2.6	.9	1.0	*	.8	*	84.2
TOT OBS: 25469															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.3	1.9	2.0	.8	.2	*		5.1	12.4		6.7	6.6	4.5	5.0	3.8	5.0	4.5	5.0
NE	.3	2.4	2.2	.5	.1	*		5.3	12.0		7.5	6.4	4.4	3.9	3.6	5.0	5.2	6.6
E	.4	3.3	4.3	1.0	.1	*		9.1	12.7		10.3	9.5	9.4	6.6	7.9	9.6	9.1	10.5
SE	.3	5.2	7.2	1.7	.2	*		14.7	13.2		13.7	13.2	15.3	14.7	14.6	15.3	16.8	14.3
S	.6	6.6	7.6	2.0	.2	*		17.0	13.5		15.0	15.1	17.0	18.0	19.7	17.6	17.9	15.7
SW	.6	7.0	7.8	3.4	.9	.1		19.7	15.3		18.9	19.2	19.2	21.1	21.6	19.2	18.7	18.9
W	.4	4.9	7.0	4.6	1.4	.2		18.5	17.0		17.7	18.4	20.1	20.2	18.7	17.8	17.7	17.7
NW	.3	2.6	3.6	2.4	.6	.1		9.5	15.8		9.6	10.5	9.7	9.5	9.0	9.1	9.2	10.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.9							.9	.0		.7	1.0	.5	1.2	1.1	1.4	.9	1.3
TOT OBS							35529		14.9		7122	3981	4697	3156	7204	2826	4228	3315
TOT PCT	4.1	33.9	41.7	16.4	3.6	.4		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40						00	06	12	18	21
N	1.0	2.3	1.4	.4	*			5.1	12.4	6.6	4.7	4.1	4.7	
NE	1.2	2.8	1.1	.2	*			5.3	12.0	7.1	4.2	4.0	5.8	
E	1.6	4.6	2.6	.3	*			9.1	12.7	10.0	8.3	8.4	9.7	
SE	2.0	7.7	4.4	.5	*			14.7	13.2	13.6	15.0	14.8	15.7	
S	2.9	8.8	4.5	.8	.1			17.0	13.5	15.0	17.4	19.1	16.9	
SW	2.9	9.2	5.4	2.0	.3			19.7	15.3	19.0	20.0	21.0	18.8	
W	2.2	6.9	5.8	3.0	.6			18.5	17.0	17.9	20.1	18.5	17.7	
NW	1.3	3.6	2.6	1.5	.2			9.5	15.8	9.9	9.6	9.0	9.5	
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	
CALM	.9							.9	.0	.8	.8	1.2	1.0	
TOT OBS							35529		14.9	11103	7853	10030	7543	
TOT PCT	10.1	45.6	28.1	8.8	1.3			100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1910-1972  
(OVER-ALL) 1854-1972

ANNUAL

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
09003	.8	3.4	34.6	40.9	16.2	3.7	.5	14.8	100.0	11103
09009	.8	2.8	32.0	42.8	17.4	3.9	.3	15.3	100.0	7853
12015	1.2	3.3	33.9	40.9	16.7	3.6	.4	14.9	100.0	10030
18021	1.0	3.1	34.8	42.7	15.2	2.9	.3	14.5	100.0	7543
TOT								14.9		36529
PCT	.9	3.2	33.9	41.7	16.4	3.6	.4		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.3	.6	1.4	1.1		4.5
NE	2.1	.7	1.4	1.0		3.0
E	4.3	1.5	2.6	1.7		3.8
SE	5.1	2.4	5.0	2.5		4.5
S	4.1	3.2	7.2	3.0		4.9
SW	2.8	4.2	8.9	3.4		5.2
W	2.3	3.7	8.9	3.6		5.3
NW	1.5	1.6	3.8	2.2		5.2
VAR	.0	.0	.0	.0		.0
CALM	.2	.1	.2	.1		4.2
TOT OBS					14129	4.8
TOT PCT	23.7	18.2	39.7	18.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
*	.0	.1	.3	.7	.5	.2	.1	*	.1	2.8	
*	*	*	.2	.6	.5	.2	.1	*	*	3.4	
*	*	*	.4	1.1	.8	.3	.1	*	*	7.0	
*	*	.2	.7	2.3	1.6	.8	.2	*	*	9.0	
*	.2	1.1	3.7	2.3	1.0	.3	.1	.1	.1	8.9	
*	*	.2	1.8	4.2	2.5	1.1	.3	*	*	9.0	
*	.3	2.1	4.3	2.0	1.0	.3	.1	.1	.1	8.3	
*	*	.1	.8	1.8	1.1	.6	.1	*	*	4.5	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	*	*	.1	.1	*	*	.0	.0	.4	
.1	.2	1.0	7.4	18.6	11.4	5.4	1.6	.3	.5	53.6	14129
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
* OR >5000	.7	.8	.8	.8	.8	.8	.8	.8
* OR >4000	2.0	2.3	2.4	2.4	2.4	2.4	2.4	2.4
* OR >3000	6.5	7.6	7.7	7.8	7.8	7.8	7.8	7.8
* OR >2000	16.3	18.6	19.1	19.1	19.1	19.1	19.1	19.1
* OR >1000	31.6	36.6	37.5	37.6	37.6	37.6	37.6	37.6
* OR >400	36.5	43.4	44.8	44.9	45.0	45.0	45.0	45.0
* OR >300	36.9	44.2	45.7	45.9	45.9	45.9	46.0	46.0
* OR >150	37.0	44.3	45.8	46.0	46.1	46.1	46.1	46.1
* OR >0	37.0	44.3	45.9	46.1	46.2	46.2	46.3	46.3

TOTAL NUMBER OF OBS: 14346

PCT FREQ NH <5/8: 53.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
10.8	10.9	10.6	10.8	10.3	8.6	10.9	12.3	14.8	.1	15712

PERIOD: (PRIMARY) 1910-1972  
(OVER-ALL) 1854-1972

ANNUAL

AREA 0017 CAPE LEEUWIN  
33.95 114.06

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	.0	.0	.0	.0	*	*	*	.0	.0	*	
	NO PCP	.0	*	*	*	*	*	*	*	.0	*	.1	
	TOT %	*	*	*	*	*	*	*	*	.0	*	.1	
1/2<1	PCP	*	*	*	*	*	.1	*	*	.0	.0	.2	
	NO PCP	*	*	.1	.1	.1	.1	.1	*	.0	*	.5	
	TOT %	*	.1	.1	.1	.1	.1	.1	.1	.0	*	.7	
1<2	PCP	*	*	*	*	*	*	*	*	.0	.0	.2	
	NO PCP	*	*	.1	.1	.1	.1	.1	*	.0	.0	.6	
	TOT %	.1	*	.1	.1	.1	.1	.1	.1	.0	.0	.7	
2<5	PCP	.1	*	*	*	.1	.1	.2	.1	.0	.0	.8	
	NO PCP	*	*	*	.1	.1	.2	.2	.1	.0	.0	.7	
	TOT %	.1	.1	.1	.1	.2	.3	.4	.3	.0	.0	1.5	
5<10	PCP	.4	.2	.3	.4	.8	1.7	2.2	1.2	.0	*	7.1	
	NO PCP	1.4	1.4	2.7	4.5	4.9	5.8	5.3	2.7	.0	.1	28.9	
	TOT %	1.8	1.6	2.9	4.9	5.7	7.5	7.5	3.9	.0	.1	35.9	
10+	PCP	.1	.1	.1	.2	.3	.5	.7	.3	.0	*	2.4	
	NO PCP	2.9	3.3	6.1	9.4	10.8	11.3	9.6	4.8	.0	.4	58.6	
	TOT %	3.0	3.4	6.2	9.5	11.1	11.8	10.4	5.1	.0	.4	61.0	
TOT OBS													24818
TOT PCT		5.0	5.2	9.4	14.8	17.3	19.9	18.5	9.5	.0	.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	
	4-10	.0	*	*	*	*	*	*	.0	.0		*	
	11-21	.0	*	*	.0	*	*	.0	*	.0		*	
	22+	*	.0	*	*	.0	*	*	*	.0		*	
	TOT %	*	*	*	*	.0	*	*	*	.0	*	.1	
1/2<1	0-3	.0	*	*	*	*	*	*	*	.0	*	*	
	4-10	*	*	*	*	*	*	*	*	.0		*	
	11-21	*	*	*	*	*	*	*	*	.0		.2	
	22+	*	*	*	*	*	*	*	*	.0		.2	
	TOT %	*	*	.1	.1	.1	.1	.1	.1	.0	*	.7	
1<2	0-3	*	.0	*	.0	*	*	*	*	.0	.0	*	
	4-10	*	*	*	*	.1	*	*	*	.0		.2	
	11-21	*	*	*	.1	.1	*	*	*	.0		.3	
	22+	*	*	*	*	*	*	*	*	.0		.2	
	TOT %	.1	*	.1	.1	.1	.1	.1	.1	.0	.0	.7	
2<5	0-3	.0	*	.0	*	*	*	.0	.0	.0	.0	*	
	4-10	*	*	*	*	.1	.1	*	*	.0		.3	
	11-21	*	*	*	.1	.1	.1	.2	.1	.0		.5	
	22+	.1	*	*	*	.1	.2	.2	.2	.0		.7	
	TOT %	.1	.1	.1	.1	.2	.3	.4	.3	.0	.0	1.6	
5<10	0-3	.1	.1	.1	.1	.2	.2	.2	.1	.0	.1	1.2	
	4-10	.6	.6	.9	1.5	1.8	2.1	1.5	.8	.0		9.8	
	11-21	.6	.6	1.4	2.2	2.4	2.8	2.7	1.4	.0		14.0	
	22+	.4	.2	.4	.7	.9	2.0	2.8	1.4	.0		8.6	
	TOT %	1.7	1.5	2.7	4.5	5.2	7.0	7.1	3.7	.0	.1	33.6	
10+	0-3	.1	.2	.2	.2	.3	.3	.2	.1	.0	.5	2.2	
	4-10	1.3	1.6	2.3	3.5	4.8	4.9	3.2	1.6	.0		23.3	
	11-21	1.3	1.5	3.1	5.0	5.1	5.0	4.5	2.1	.0		27.7	
	22+	.4	.2	.6	1.1	1.3	2.1	2.8	1.4	.0		10.0	
	TOT %	3.2	3.5	6.2	9.9	11.6	12.3	10.7	5.3	.0	.5	63.3	
TOT OBS													27351
TOT PCT		5.0	5.2	9.2	14.8	17.3	19.9	18.5	9.4	.0	.7	100.0	



## ANNUAL

PERIOD: (PRIMARY) 1910-1972  
(OVER-ALL) 1854-1972

TABLE 10

AREA 0017 CAPE LEEUWIN  
33.95 114.6F

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.1	.3	1.2	7.9	19.9	12.3	5.8	2.3	.3	.6	50.7	49.3	3928
06009	.2	.1	.9	6.8	15.8	10.7	5.1	1.2	.2	.3	41.5	58.5	3925
12015	.2	.2	.9	6.6	17.2	9.9	4.5	1.5	.2	.6	41.8	58.2	3615
18021	.1	.0	.6	6.9	17.7	10.5	5.2	1.0	.3	.5	42.8	57.2	3553
TOT PCT	.1	.2	.9	7.1	17.7	10.9	5.2	1.5	.3	.5	44.3	55.7	15021 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	.8	.9	1.8	35.5	60.9	7923
06009	.1	.7	.7	1.4	29.6	67.4	6245
12015	.1	.7	.9	1.7	38.0	58.6	7690
18021	.2	.5	.4	1.3	31.2	66.5	6125
TOT PCT	.1	.7	.7	1.6	39.9	62.9	27983 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH > 4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.1	1.7	11.6	41.6	46.8	3754
06009	.2	1.4	9.6	33.9	56.6	3765
12015	.2	1.3	9.6	34.7	55.7	3427
18021	.1	.9	9.1	35.8	55.1	3399
TOT PCT	.1	1.4	10.0	36.6	53.4	14346 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	*	.0	.0	.0	.0	*	
80/84	.0	*	*	*	*	*	*	.0	.1	
75/79	.0	.0	*	.1	.2	.4	.1	*	.9	
70/74	*	*	.1	.4	1.2	2.0	2.2	.9	6.8	
65/69	.0	*	.1	1.0	4.5	8.5	8.5	3.8	26.5	
60/64	.0	*	.2	2.5	10.7	12.9	8.7	3.1	38.1	
55/59	.0	*	.1	1.7	6.0	8.0	5.8	2.0	23.7	
50/54	.0	.0	*	1.4	.9	1.0	1.2	.4	3.9	
45/49	.0	.0	.0	.0	*	*	*	*	.1	
TOTAL PCT	*	.1	.4	6.1	23.5	32.9	26.5	10.3	18450 100.0	

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	*	*	.0	.0
*	*	*	*	*	*	*	.0	.0	.0
*	.1	.2	.2	.2	.1	*	*	.0	*
.4	.6	1.0	1.6	1.3	.8	.6	.4	.0	.1
1.4	1.5	3.5	5.1	4.8	3.8	3.8	2.4	.0	.2
2.1	1.9	3.0	5.1	5.9	7.6	7.9	4.3	.0	.3
.9	1.1	1.3	2.1	3.9	6.4	5.7	2.2	.0	.1
.1	.1	.2	.2	1.0	1.4	.7	.2	.0	.0
.0	.0	*	*	*	*	*	.0	.0	.0
4.9	5.2	9.2	14.5	17.2	20.1	18.6	9.5	.0	.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	83	73	69	62	57	54	46	62.8	10906
06009	86	74	71	64	58	55	49	64.0	7726
12015	85	72	69	62	57	54	48	62.6	10056
18021	83	70	67	61	56	54	47	61.7	7640
TOT	86	73	69	62	57	55	46	62.8	36338

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	6.9	21.7	33.8	26.7	10.9	7.6	5169		
06009	*	10.5	30.4	32.0	20.5	6.5	73	4409		
12015	.0	5.6	21.3	32.6	29.4	11.2	76	4935		
18021	.0	4.5	21.1	32.6	29.2	12.5	77	4306		
TOT	1	1288	4401	6160	5006	1953	76	18819		

PERIOD: (PRIMARY) 1910-1972  
(OVER-ALL) 1854-1972

ANNUAL

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	45 48	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.0	.0	.0	*	.0	*	.0	.0	3	.0	*
11/13	.0	.0	.0	.0	.0	.0	*	*	*	*	*	22	.0	.1
9/10	.0	.0	.0	.0	*	*	*	*	.1	*	.0	36	.0	.2
7/8	.0	.0	.0	*	*	*	*	.2	.1	*	.0	91	*	.4
6	.0	.0	.0	*	*	.1	.1	.2	.1	.0	.0	104	*	.5
5	.0	.0	.0	*	.1	.2	.3	.3	*	.0	*	202	*	.9
4	.0	.0	*	.1	.2	.4	.4	.3	*	.0	.0	293	*	1.3
3	.0	.0	*	.1	.3	.7	.8	.3	*	.0	.0	518	*	2.3
2	.0	*	*	.2	.7	1.3	1.1	.3	*	.0	.0	816	.1	3.6
1	.0	.0	*	.5	1.2	2.0	1.6	.2	*	.0	.0	1230	.1	5.5
0	.0	.0	.1	.9	2.3	3.1	1.7	.1	.0	.0	.0	1792	.2	6.0
-1	.0	*	.2	1.5	3.5	3.8	1.3	*	.0	.0	.0	2264	.2	10.1
-2	.0	.0	.4	1.9	4.1	4.0	.8	*	.0	.0	.0	2445	.1	11.0
-3	.0	*	.5	2.6	4.7	3.4	.4	.0	.0	.0	.0	2538	.1	11.4
-4	.0	*	.8	3.3	4.4	1.9	.1	*	.0	.0	.0	2306	.1	10.5
-5	.0	.1	.9	3.7	3.6	1.2	.1	*	.0	.0	.0	2068	.1	9.5
-6	.0	.1	1.1	3.1	2.5	.5	*	*	.0	.0	.0	1552	*	7.1
-7/-8	.0	.1	2.2	4.5	2.5	.3	*	.0	.0	.0	.0	2067	*	9.6
-9/-10	.0	.3	1.7	1.8	.5	*	.0	.0	.0	.0	.0	937	*	4.4
-11/-13	.0	.3	1.0	.8	.1	*	.0	.0	.0	.0	.0	473	*	2.2
-14/-16	*	.1	.2	.1	*	.0	.0	.0	.0	.0	.0	79	.0	.4
-17/-19	.0	*	*	.0	.0	.0	.0	.0	.0	.0	.0	9	.0	*
TOTAL												21845		
PCT	*	1.0	9.2	24.9	30.7	23.0	8.7	2.0	.4	*	*	100.0	1.1	98.9

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.1	.0	.0	.0	.0	.2	.1	.4	*	.0	.0	.0	.5
1-2	*	.9	.2	.0	.0	.0	1.2	.1	1.1	.3	.0	.0	.0	1.4
3-4	*	.6	.8	.1	.0	.0	1.4	.0	.6	.8	*	.0	.0	1.4
5-6	.0	.1	.7	.2	.1	.0	1.0	.0	.1	.8	.1	.0	.0	1.0
7	.0	.0	.2	.2	.0	.0	.4	.0	.0	.2	.1	.0	.0	.3
8-9	.0	.0	*	.1	*	.0	.2	.0	.0	.1	.1	*	.0	.1
10-11	.0	.0	*	.1	*	.0	.1	.0	.0	.0	*	.0	.0	*
12	.0	.0	.0	*	*	.0	*	.0	.0	.0	*	.0	.0	*
13-16	.0	.0	.0	.1	*	.0	.1	.0	.0	.0	*	.0	.0	*
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.7	1.9	.8	.1	.0	4.6	.2	2.1	2.1	.3	*	.0	4.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.4	*	.0	.0	.0	.5	.1	.5	*	.0	.0	.0	.6
1-2	*	1.5	.6	.0	.0	.0	2.1	.1	2.1	.8	.0	.0	.0	2.9
3-4	.0	1.1	1.7	.1	.0	.0	3.0	*	1.6	2.8	.2	.0	.0	4.6
5-6	*	.3	1.8	.3	*	.0	2.4	.0	.3	2.8	.4	.0	.0	3.5
7	.0	*	.8	.3	*	.0	1.2	.0	*	1.1	.7	*	.0	1.9
8-9	.0	.0	.2	.2	.0	.0	.4	.0	.0	.5	.3	*	.0	.8
10-11	.0	.0	.0	.1	*	.0	.1	.0	.0	*	.2	.1	.0	.3
12	.0	.0	*	.1	.0	.0	.1	.0	.0	*	.1	*	.0	.1
13-16	.0	.0	*	.1	*	.0	.1	.0	*	*	.1	*	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	3.3	5.2	1.2	.1	.0	9.9	.2	4.5	8.1	1.9	.2	*	15.0

PERIOD: (OVER-ALL) 1963-1972

ANNUAL  
TABLE 18 (CONT)AREA 0017 CAPE LEEUWIN  
33.95 114.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.8	*	.0	.0	.0	1.1	.2	.5	*	.0	.0	.0	.7
1-2	.1	3.1	.7	.0	.0	.0	4.0	.1	3.3	.9	.0	.0	.0	4.3
3-4	*	2.2	3.1	.3	.0	.0	5.7	*	2.5	2.8	.2	.0	.0	5.5
5-6	.0	.4	2.9	.6	*	.0	3.9	.0	.6	3.0	.6	.1	.0	4.2
7	*	.1	1.1	.7	.0	.0	1.8	*	.1	1.1	.8	.2	.0	2.1
8-9	.0	.0	.3	.4	.1	.0	.8	.0	.1	.3	.6	.2	.0	1.1
10-11	.0	*	.1	.2	.1	.0	.4	.0	*	.1	.3	.1	*	.6
12	.0	*	*	.1	*	.0	.1	.0	*	*	.1	.1	*	.2
13-16	.0	.0	.1	.1	.0	.0	.2	.0	*	*	.2	.1	.0	.4
17-19	.0	*	.0	*	*	.0	.1	.0	*	*	.1	.1	.0	.1
20-22	.0	.0	.0	*	*	.0	*	.0	.0	*	*	*	*	.1
23-25	.0	.0	.0	.0	.0	.0	.6	.0	.0	*	*	*	*	*
26-32	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*	.0	*	*
33-40	.0	.0	.0	*	*	*	*	.0	.0	.0	*	*	*	*
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	6.6	8.3	2.5	.2	*	18.0	.3	7.1	8.2	2.9	.8	.1	19.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	.4	.0	.0	.0	.0	.6	*	.2	.0	.0	.0	.0	.2	
1-2	.1	1.9	.8	.0	.0	.0	2.8	.1	.9	.4	.0	.0	.0	1.3	
3-4	.0	1.6	2.2	.3	.0	.0	4.1	*	.8	1.2	.2	.0	.0	2.2	
5-6	.0	.3	2.6	.9	.1	.0	3.9	.0	.2	1.2	.5	*	.0	1.9	
7	*	.1	1.1	1.5	.2	.0	2.9	*	*	.5	.6	.1	.0	1.2	
8-9	*	*	.4	.9	.2	*	1.5	*	.0	.1	.5	.2	.0	.7	
10-11	.0	.0	.1	.6	.2	.0	.9	.0	*	*	.5	.1	.0	.7	
12	.0	*	*	.5	.2	*	.8	*	.0	.0	.2	.1	.0	.2	
13-16	.0	.0	*	.3	.1	*	.4	.0	.0	*	.1	*	*	.2	
17-19	.0	*	*	.1	.1	*	.3	.0	*	*	*	.1	.0	.1	
20-22	.0	.0	*	*	.1	*	.2	.0	.0	*	*	*	*	*	
23-25	.0	.0	*	*	.1	.1	.1	.0	.0	.0	*	.0	.0	*	
26-32	.0	.0	.0	*	*	*	*	.0	.0	.0	*	.0	.0	*	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	4.3	7.3	5.2	1.3	.1	18.7	.1	2.0	3.5	2.7	.5	.1	8.9	99.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.2	3.4	.1	.0	.0	.0	5.7	
1-2	.6	14.8	4.7	.0	.0	.0	20.1	
3-4	.1	10.9	15.4	1.5	.0	.0	27.8	
5-6	*	2.2	15.6	3.6	.3	.0	21.7	
7	*	.4	6.0	4.8	.4	.0	11.6	
8-9	*	.1	1.8	3.0	.6	*	5.5	
10-11	.0	*	.3	2.0	.6	*	3.1	
12	*	*	*	1.0	.4	*	1.5	
13-16	.0	*	.2	1.0	.3	*	1.6	
17-19	.0	*	.1	.2	.3	*	.6	
20-22	.0	.0	.1	.1	.2	.1	.4	
23-25	.0	.0	*	*	.1	.1	.2	
26-32	.0	.0	.0	*	*	*	.1	
33-40	.0	.0	.0	*	*	*	.1	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.0	31.9	44.3	17.3	3.2	.3	100.0	8088

PERIOD: (OVER-ALL) 1949-1970

## TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.7	4.0	5.5	3.5	1.8	.9	.6	.2	.2	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	2192	4
6-7	.0	.4	3.0	6.4	5.4	3.0	2.1	.8	1.0	.2	.2	.1	*	.0	.0	.0	.0	.0	.0	2674	7
8-9	.0	.1	1.0	4.0	5.2	4.5	3.5	1.9	2.0	.5	.4	.1	.1	.0	.0	.0	.0	.0	.0	2745	9
10-11	.0	.1	.4	1.3	2.5	2.9	2.5	1.8	2.2	.6	.4	.2	.2	*	.0	.0	.0	.0	.0	1769	10
12-13	.0	.0	.2	.4	.9	1.3	1.5	1.2	1.5	.3	.3	.2	.2	*	.0	.0	.0	.0	.0	965	11
>13	.0	.0	.0	.1	.3	.4	.6	.5	.8	.2	.2	.2	.3	*	.0	.0	.0	.0	.0	424	14
INDET	.6	.8	1.4	1.5	1.5	.9	.8	.4	.6	.1	.1	*	.1	.1	.0	.0	.0	.0	.0	1363	7
TOTAL PCT	1.3	5.5	12.4	17.1	17.5	13.9	11.7	6.8	8.3	2.0	1.6	.8	.9	.1	.0	.0	.0	.0	.0	11833	8

PERIOD: (PRIMARY) 1910-1972  
(OVER-ALL) 1854-1972

TABLE 20

AREA 0017 CAPE LEEUWIN  
33.95 114.6E

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
83/84	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
81/82	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
79/80	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
77/78	.1	.3	.1	.0	.1	.0	.0	.0	.0	.0	.0	.1	20	.1
75/76	.3	.4	.9	.2	.1	.1	.0	.0	.1	.1	.1	.1	72	.2
73/74	1.5	3.6	4.6	2.8	1.3	.4	.2	.0	.1	.1	.0	.4	447	1.4
71/72	8.6	12.5	13.5	11.6	7.5	2.4	.7	.2	.0	.2	.3	2.4	1756	5.3
69/70	20.9	29.4	28.6	29.1	22.9	11.8	3.5	1.4	.5	.4	2.0	10.1	4645	14.1
67/68	35.0	31.2	30.4	28.5	27.9	22.8	12.1	6.1	4.1	4.2	10.4	26.7	6759	20.5
65/66	21.8	14.8	14.9	16.6	20.3	25.8	23.3	17.9	13.1	16.9	28.9	31.6	6746	20.4
63/64	8.8	6.5	5.8	7.9	12.7	20.2	28.1	31.2	31.2	33.6	34.3	19.8	6429	19.5
61/62	1.7	1.1	.9	2.2	5.4	9.7	17.0	20.9	23.5	22.7	15.8	5.0	3339	10.1
59/60	.7	.0	.2	.5	1.2	4.1	9.6	13.1	16.0	13.2	5.7	2.1	1726	5.2
57/58	.2	.0	.1	.4	.4	1.5	3.9	6.1	7.4	5.9	2.0	.6	736	2.2
55/56	.0	.0	.0	.1	.1	.8	1.2	2.3	3.1	1.9	.5	.1	258	.8
53/54	.0	.0	.0	.0	.1	.2	.3	.5	.6	.6	.0	.0	52	.2
51/52	.0	.0	.0	.0	.0	.0	.1	.3	.3	.1	.0	.0	18	.1
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	3	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	2629	2718	3237	3134	2910	2594	2536	2349	2311	3029	2772	2804	33023	100.0
MEAN	67.4	68.2	68.3	67.8	66.9	65.3	63.6	62.6	62.1	62.5	63.9	65.8	65.3	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1016	1014	1015	1014	1015	1015	1014	1014	1015	1769
FEB	1016	1015	1015	1014	1015	1015	1015	1015	1015	1712
MAR	1017	1017	1016	1016	1017	1016	1016	1016	1016	2186
APR	1018	1019	1017	1018	1018	1018	1017	1018	1018	2143
MAY	1017	1015	1017	1015	1017	1015	1018	1015	1017	2138
JUN	1015	1016	1014	1015	1016	1017	1014	1016	1015	1952
JUL	1017	1018	1016	1017	1017	1017	1017	1015	1017	1701
AUG	1018	1019	1017	1018	1018	1018	1018	1017	1018	1619
SEP	1018	1017	1018	1017	1018	1017	1018	1016	1018	1640
OCT	1016	1016	1017	1016	1017	1017	1017	1016	1017	2041
NOV	1016	1016	1015	1017	1016	1017	1015	1016	1016	1845
DEC	1015	1014	1016	1013	1015	1013	1014	1012	1015	1842
ANN	1017	1016	1016	1016	1017	1016	1016	1016	1016	22588
OBS	4971	1546	4138	1095	4859	988	3878	1113		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	996	1003	1007	1012	1015	1018	1023	1027	1031
FEB	997	1003	1007	1012	1015	1018	1022	1026	1029
MAR	992	1003	1008	1013	1017	1020	1024	1026	1031
APR	990	1001	1007	1014	1018	1021	1027	1029	1034
MAY	989	997	1002	1011	1017	1023	1026	1031	1035
JUN	987	992	999	1009	1016	1022	1027	1031	1035
JUL	977	996	1001	1011	1018	1023	1030	1032	1037
AUG	988	996	1003	1013	1019	1023	1029	1032	1036
SEP	994	1000	1005	1013	1018	1023	1028	1032	1035
OCT	991	998	1005	1012	1017	1021	1027	1029	1033
NOV	991	1001	1006	1013	1016	1020	1024	1027	1030
DEC	996	1000	1005	1011	1015	1018	1023	1027	1031

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1857-1969

# JANUARY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	12.1	.0	.0	12.1	12.1	.0	63.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.5	.0	.0	1.7	.0	99.7
SE	.2	.0	.0	.0	.0	.0	.0	.2	.0	1.3	1.3	.0	4.0	.0	93.2
S	.4	.3	.3	.0	.0	.0	.0	1.0	.4	.9	.9	.0	2.9	.0	93.9
SW	1.0	2.1	1.0	.0	.0	.0	.0	4.1	.3	3.4	.5	.0	1.3	.0	91.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	.0	.0	.0	96.2
NW	5.7	.0	.0	.0	.0	.0	.0	5.7	.0	.0	.0	.0	5.7	.0	88.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.5	.5	.3	.0	.0	.0	.0	1.3	.3	1.5	1.0	.1	2.9	.0	93.0
TOT OBS:	1242														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.3	.6	.0	.0	.0	.0	.0	.9	.6	.3	.9	.3	2.4	.0	94.7
06009	.8	.0	.0	.0	.0	.0	.0	.8	.4	.0	1.2	.0	3.3	.0	94.2
12015	.8	.8	.3	.0	.0	.0	.0	1.9	.0	2.7	.5	.0	4.4	.0	90.7
18021	.0	.3	1.0	.0	.0	.0	.0	1.3	.7	2.6	1.3	.0	2.0	.0	92.1
TOT PCT	.5	.5	.3	.0	.0	.0	.0	1.3	.4	1.5	1.0	.1	3.0	.0	92.8
TOT OBS:	1249														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.0	.3	.1	.1	.0	.0		.5	10.7		.4	.9	.6	.0	.9	.0	.3	.0
NE	.0	.3	.3	.0	.0	.0		.6	11.5		1.1	.5	.2	.8	.3	1.1	.3	1.0
E	.2	.9	1.2	.3	.0	.0		2.5	12.8		4.7	5.0	1.0	.4	1.3	3.2	1.2	4.5
SE	.3	3.8	15.0	7.6	.2	.0		26.9	17.7		31.9	28.2	29.8	21.8	21.4	15.2	28.1	29.2
S	.4	10.6	28.2	10.9	.8	.0		50.9	16.3		46.1	47.9	51.9	57.5	56.4	50.3	51.7	43.8
SW	.4	5.7	7.5	1.2	.0	.0		14.9	12.8		13.1	12.8	13.1	17.5	15.2	22.6	14.3	18.5
W	.1	1.1	.7	.1	.0	.0		2.0	11.0		1.2	2.3	1.4	.4	2.4	2.9	3.3	2.3
NW	.1	.7	.5	.1	.0	.0		1.4	10.7		1.3	2.3	1.7	1.6	1.4	4.8	.0	1.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.4							.4	.0		.2	.0	.3	.0	.8	.0	.7	.0
TOT OBS	32	450	1029	391	20	0	1922		15.9		425	109	315	126	398	94	301	154
TOT PCT	1.7	23.4	53.5	20.3	1.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	.2	.2	.1	.0	.0	.0	.5	10.7	.5	.5	.8	.2	
NE	.2	.2	.2	.0	.0	.0	.6	11.5	.9	.3	.4	.5	
E	.5	1.1	.7	.1	.0	.0	2.5	12.8	4.8	.8	1.6	2.4	
SE	.9	9.5	14.5	2.1	.0	.0	26.9	17.7	31.2	27.5	20.2	28.5	
S	2.3	23.8	20.7	4.1	.0	.0	50.9	16.3	46.5	43.5	55.2	49.0	
SW	1.7	9.4	3.6	.2	.0	.0	14.9	12.6	13.0	14.3	16.6	15.7	
W	.5	1.1	.3	.1	.0	.0	2.0	11.0	1.5	1.1	2.5	3.0	
NW	.4	.8	.2	.0	.0	.0	1.4	10.7	1.5	1.7	2.0	.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.4						.4	.0	.2	.2	.6	.4	
TOT OBS	136	887	776	123	0	1922		15.9	534	441	492	455	
TOT PCT	7.1	46.1	40.4	6.4	.0		100.0		100.0	100.0	100.0	100.0	



PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1857-1969

JANUARY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	.2	1.1	28.3	52.6	17.6	.2	.0	.0	15.1	100.0	534
06009	.2	.9	21.8	53.1	22.9	1.1	.0	.0	16.3	100.0	441
12015	.6	1.6	20.9	53.5	21.7	1.6	.0	.0	16.4	100.0	492
18021	.4	1.5	27.0	55.2	19.6	1.3	.0	.0	15.9	100.0	455
TOT	7	25	450	1029	391	20	0	0	15.9		1922
PCT	.4	1.3	23.4	53.5	20.3	1.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.1	.2	.5	.0		4.7
NE	.2	.0	.1	.1		4.0
E	1.1	.1	.3	.1		2.1
SE	15.5	4.1	6.6	2.0		2.8
S	24.2	9.8	14.8	4.5		3.4
SW	4.2	2.7	3.9	1.1		3.8
W	.7	.7	.4	.3		3.7
NW	.4	.1	.7	.1		4.6
VAR	.0	.0	.0	.0		.0
CALM	.5	.1	.0	.1		2.5
TOT OBS	414	157	240	73	884	3.3
TOT PCT	46.8	17.8	27.1	8.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.4	
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.2	
.0	.0	.0	.0	.1	.0	.0	.1	.0	.1	1.4	
.1	.0	.1	.5	2.6	1.9	.7	.3	.1	.3	21.8	
.1	.0	.6	1.9	5.8	4.1	1.9	.7	.1	.2	37.8	
.0	.0	.3	.7	1.6	.5	.4	.2	.0	.0	8.3	
.0	.0	.0	.2	.2	.1	.1	.0	.1	.0	1.4	
.0	.0	.0	.0	.3	.2	.0	.0	.0	.0	.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.2	.0	.8	30	98	60	27	11	3	5	840	
.2	.0	.9	3.4	11.1	6.8	3.1	1.2	.3	.6	72.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.8	.9	.9	.9	.9	.9	.9	.9
>4000	2.0	2.1	2.1	2.1	2.1	2.1	2.1	2.1
>3500	4.7	5.1	5.2	5.2	5.2	5.2	5.2	5.2
>3000	10.5	11.8	12.0	12.0	12.0	12.0	12.0	12.0
>2500	20.5	22.8	23.0	23.0	23.0	23.0	23.0	23.0
>2000	22.8	26.3	26.5	26.5	26.5	26.5	26.5	26.5
>1500	23.2	26.9	27.4	27.4	27.4	27.4	27.4	27.4
>1000	23.2	26.9	27.4	27.4	27.4	27.4	27.4	27.4
>500	23.3	27.1	27.5	27.5	27.5	27.5	27.5	27.5
TOTAL	207	240	244	244	245	245	245	245

TOTAL NUMBER OF OBS: 887

PCT FREQ NH <5/8: 72.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
24.9	17.9	11.2	9.2	7.9	5.6	8.1	8.8	6.5	.1	968

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1857-1969

JANUARY

AREA 0018 PERTH NW  
29.9S 112.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.3	
	TOT %	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.3	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	*	.8	.7	.1	.0	.0	.0	.0	1.7	
	TOT %	.0	.0	*	.8	.7	.1	.0	.0	.0	.0	1.7	
2<5	PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.2	.3	.0	.1	.0	.0	.0	.6	
	TOT %	.0	.0	.0	.2	.3	.1	.1	.0	.0	.0	.7	
5<10	PCP	.0	.0	*	.1	.2	.6	.0	.1	.0	.0	1.0	
	NO PCP	.1	.1	.6	5.4	14.0	4.8	.6	.4	.0	.0	26.0	
	TOT %	.1	.1	.6	5.5	14.2	5.4	.6	.4	.0	.0	27.0	
10+	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	NO PCP	.5	.3	1.7	17.9	36.8	9.9	1.4	1.0	.0	.5	70.0	
	TOT %	.5	.3	1.7	17.9	37.0	9.9	1.4	1.0	.0	.5	70.2	
TOT OBS													1240
TOT PCT		.7	.4	2.4	24.5	52.8	15.5	2.1	1.4	.0	.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.3	
1<2	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	*	.2	.1	.1	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.5	.6	.3	.0	.0	.0	.0	1.4	
	22+	.0	.0	.0	.1	.8	.1	.0	.0	.0	.0	1.0	
	TOT %	.0	.0	*	1.0	1.6	.5	.0	.0	.0	.0	3.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.1	.2	.1	.1	.0	.0	.0	.4	
	22+	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.2	.3	.1	.1	.0	.0	.0	.5	
5<10	0-3	.0	.0	.1	*	.1	.1	.0	.1	.0	.1	.4	
	4-10	.1	*	.3	.6	2.7	2.4	.4	.3	.0	.0	6.9	
	11-21	.0	.1	.3	3.8	8.8	2.6	.2	.2	.0	.0	15.8	
	22+	.0	.0	.1	2.5	4.4	.2	.1	.0	.0	.0	7.3	
	TOT %	.1	.1	.7	6.9	16.1	5.2	.7	.3	.0	.1	30.4	
10+	0-3	.0	.0	.0	.2	.2	.1	*	.0	.0	.0	1.0	
	4-10	.2	.1	.6	2.6	7.6	3.3	.6	.3	.0	.4	15.4	
	11-21	.1	.2	.8	10.4	18.6	4.5	.4	.3	.0	.0	35.3	
	22+	.1	.0	.2	5.5	7.2	.7	.1	.1	.0	.0	13.9	
	TOT %	.4	.3	1.6	18.7	33.7	8.7	1.1	.8	.0	.4	65.6	
TOT OBS													1672
TOT PCT		.5	.4	2.3	26.9	51.8	14.4	1.9	1.3	.0	.4	100.0	

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1857-1969

JANUARY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.8	.0	1.2	3.6	18.8	9.2	2.8	1.6	.0	.8	36.8	61.2	250
06009	.0	.0	1.9	3.3	7.0	5.1	2.8	1.4	.5	.5	22.4	77.6	214
12015	.0	.0	.4	3.0	9.4	5.5	3.4	.9	.0	.4	23.0	77.0	235
18021	.0	.0	.0	3.4	6.0	6.0	2.6	.9	.9	.4	20.1	79.9	234
TOT	2	0	8	31	98	61	27	11	3	5	246	687	933
PCT	.2	.0	.9	3.3	10.5	6.5	2.9	1.2	.3	.5	26.4	73.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.4	3.2	.4	29.2	66.7	466
06009	.3	.5	4.0	.5	30.2	64.4	374
12015	.0	.2	3.6	.7	33.3	62.2	447
18021	.0	.3	1.5	.5	29.1	68.7	399
TOT	1	6	52	9	514	1164	1686
PCT	.1	.4	3.1	.5	30.5	65.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.8	2.1	6.8	34.6	58.6	237
06009	.0	2.5	6.4	17.6	76.0	204
12015	.0	.4	3.6	20.0	76.4	225
18021	.0	.0	4.1	17.6	78.3	221
TOT	2	11	46	202	639	887
PCT	.2	1.2	5.2	22.8	72.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
80/84	.0	.0	.2	.0	.5	.2	.3	.0	13	1.1
75/79	.0	.0	.1	.7	1.2	5.0	3.0	.4	115	9.8
70/74	.0	.0	.0	1.3	3.7	13.2	19.0	8.5	534	45.6
65/69	.0	.0	.0	.9	6.6	12.6	14.9	5.5	474	40.5
60/64	.0	.0	.0	.1	1.3	.5	.8	.3	34	2.9
TOTAL	0	0	3	30	155	367	444	172	1171	100.0
PCT	.0	.0	.3	2.6	13.2	31.3	37.9	14.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
80/84	.0	.1	.1	.3	.5	.1	.0	.1	.0	.0
75/79	.1	.1	.4	3.1	4.3	.9	.1	.6	.0	.2
70/74	.4	.1	1.1	12.3	23.7	6.3	.9	.8	.0	.1
65/69	.0	.0	.4	9.8	22.8	6.6	.8	.0	.0	.1
60/64	.0	.0	.0	.6	1.6	.6	.1	.0	.0	.0
TOTAL	.5	.3	2.0	26.1	52.9	14.5	1.8	1.5	.0	.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	85	82	77	70	64	63	62	70.6	519
06009	85	83	78	72	67	64	63	72.2	429
12015	84	79	77	70	65	64	62	70.2	485
18021	78	76	74	69	64	63	61	69.0	448
TOT	85	81	77	70	65	63	61	70.5	1881

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	3.1	16.5	28.4	37.5	14.4	79	320
06009	.0	6.2	15.8	43.5	26.9	7.7	76	260
12015	.0	1.3	12.3	27.4	41.3	17.7	80	310
18021	.0	1.7	7.9	27.7	44.2	18.5	81	292
TOT	0	35	155	370	447	175	79	1182

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1857-1969

JANUARY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.2	.3	.1	6	.0	.6
9/10	.0	.0	.0	.0	.1	.4	.1	6	.0	.6
7/8	.0	.0	.0	.1	.2	.3	.0	6	.0	.6
6	.0	.0	.0	.3	.4	.0	.0	7	.0	.7
5	.0	.2	.2	1.1	.7	.0	.0	22	.0	2.2
4	.0	.0	.3	1.6	.8	.0	.0	27	.1	2.5
3	.0	.3	1.2	2.5	.7	.0	.0	48	.0	4.7
2	.1	.4	3.0	3.2	.2	.0	.0	71	.1	6.9
1	.2	1.3	6.0	3.2	.2	.0	.0	111	.1	10.8
0	.1	1.9	10.5	3.5	.1	.0	.0	164	.2	15.9
-1	.1	4.0	10.1	1.0	.0	.0	.0	155	.0	15.2
-2	.4	5.9	6.3	.2	.0	.0	.0	130	.1	12.6
-3	.3	5.1	4.5	.8	.0	.0	.0	109	.0	10.7
-4	1.2	3.7	2.4	.2	.0	.0	.0	77	.0	7.5
-5	.3	3.2	.5	.1	.0	.0	.0	42	.0	4.1
-6	.1	1.5	.2	.0	.0	.0	.0	18	.0	1.8
-7/-8	.4	.7	.2	.0	.0	.0	.0	13	.0	1.3
-9/-10	.2	.3	.1	.0	.0	.0	.0	6	.0	.6
-11/-13	.0	.3	.0	.0	.0	.0	.0	3	.0	.3
TOTAL	34	293	464	182	36	10	2	1021	6	1015
PCT	3.3	28.7	45.4	17.8	3.5	1.0	.2	100.0	.6	99.4

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.4	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.4	.0	.3	.0	.0	.7	.0	.2	.3	.0	.0	.0	.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.2
1-2	.0	.3	.0	.0	.0	.0	.3	.0	.4	.2	.3	.0	.0	5.3
3-4	.0	.0	.5	.0	.0	.0	.5	.0	.9	3.9	.6	.0	.0	5.3
5-6	.0	.2	.3	.0	.0	.0	.5	.0	.4	5.7	1.2	.0	.0	7.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5	.7	.0	.0	3.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	1.3	.0	.0	2.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.3	.1	.0	.9
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.7
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.4	.0	1.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.7	.8	.0	.0	.0	1.5	.4	4.2	15.3	5.7	.5	.0	26.2

PERIOD: (OVER-ALL) 1963-1969

JANUARY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.3	.6	.0	.0	.0	.0		1.0	.0	.8	.0	.0	.0	.0		.8
1-2	.2	6.3	2.3	.0	.0	.0		8.8	.0	2.4	1.4	.0	.0	.0		3.8
3-4	.0	2.4	10.1	1.6	.0	.0		14.1	.0	1.6	2.5	.1	.0	.0		4.2
5-6	.0	1.5	9.7	4.4	.0	.0		15.6	.0	.0	1.0	.1	.0	.0		1.2
7	.0	.2	2.5	4.0	.6	.0		7.3	.0	.0	.4	.4	.0	.0		.8
8-9	.0	.0	1.4	2.2	.2	.0		3.8	.0	.0	.0	.2	.0	.0		.2
10-11	.0	.2	.3	1.4	.5	.0		2.4	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.1	.9	.0	.0		1.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.4	.1	.0		.6	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.2	.0		.2	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.1	.0	.0	.0		.1	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.2	.0	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.2	.0		.2	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.5	11.3	26.7	14.9	1.8	.0		55.2	.0	4.8	5.4	.9	.0	.0		11.1

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.2	.0	.0	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0	
1-2	.1	.2	.0	.0	.0	.0		.3	.0	.0	.0	.0	.0	.0		.0	
3-4	.0	.7	1.1	.0	.0	.0		1.8	.0	.4	.6	.0	.0	.0		1.0	
5-6	.0	.0	.1	.0	.0	.0		.1	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.3	.0	.0		.3	.0	.0	.0	.4	.0	.0		.4	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.1	1.1	1.3	.3	.0	.0		2.8	.0	.4	.6	.4	.0	.0		1.4	99.4

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.0	1.9	.0	.0	.0	.0	2.9	
1-2	.8	12.0	6.0	.0	.0	.0	18.8	
3-4	.0	5.4	18.8	2.3	.0	.0	27.5	
5-6	.0	2.1	16.8	5.8	.0	.0	24.6	
7	.0	.2	5.4	6.2	.6	.0	12.4	
8-9	.0	.2	1.9	3.7	.2	.0	6.0	
10-11	.0	.2	.8	1.7	.6	.0	3.3	
12	.0	.0	.2	1.5	.0	.0	1.7	
13-16	.0	.0	.0	1.2	.6	.0	1.7	
17-19	.0	.0	.0	.0	.2	.0	.2	
20-22	.0	.0	.2	.2	.0	.0	.4	
23-25	.0	.0	.2	.0	.0	.0	.2	
26-32	.0	.0	.0	.0	.2	.0	.2	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.7	23.0	50.3	22.6	2.3	.0	100.0	517

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.4	3.5	7.4	5.4	2.4	1.5	1.1	.3	.8	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	170	5
6-7	.0	.3	4.3	8.7	7.8	5.0	2.8	1.2	.7	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	232	7
8-9	.0	.0	1.7	4.2	6.5	4.2	2.6	1.6	1.1	.4	.5	.3	.1	.0	.0	.0	.0	.0	.0	172	8
10-11	.0	.0	.7	2.0	2.7	1.7	1.3	1.2	1.1	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	82	8
12-13	.0	.0	.0	.3	.4	.3	.3	.3	.7	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	23	11
13	.0	.0	.0	.0	.3	.3	.3	.0	.3	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	12	14
INDEF	.4	.3	.9	.9	1.6	.5	1.5	.3	.4	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	52	7
TOTAL	6	30	112	140	141	100	76	36	37	11	7	4	3	0	0	0	0	0	0	743	7
PCT	.8	4.0	15.1	21.5	21.7	13.5	10.2	4.8	5.0	1.5	.9	.5	.4	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1927-1969  
(OVER-ALL) 1880-1969

# FEBRUARY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	.0	7.1	14.3	.0	.0	.0	.0	21.4	.0	.0	.0	.0	.0	.0	78.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.5	.0	.0	.0	.0	89.5
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	.0	.0	.0	94.7
SE	.6	.7	.1	.0	.0	.0	.0	1.4	.5	.5	1.1	.0	4.0	.0	92.5
S	.5	.7	.5	.0	.0	.0	.0	1.7	.6	.7	1.2	.0	4.8	.0	90.9
SW	.2	3.0	.0	.0	.0	.0	.0	3.2	1.5	.7	1.7	.0	5.6	.0	87.3
W	2.9	10.3	2.9	.0	.0	.0	.0	16.2	.0	.0	.0	.0	5.9	.0	77.9
NW	.0	3.5	.0	.0	.0	.0	.0	3.5	.0	14.0	14.0	.0	.0	.0	68.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.0	25.0	.0	.0	.0	50.0
TOT PCT	.5	1.4	.4	.0	.0	.0	.0	2.3	.7	.9	1.7	.0	4.4	.0	90.1
TOT OBS:	1211														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
0600	1.4	2.4	.0	.0	.0	.0	.0	3.7	.3	.0	2.0	.0	5.1	.0	88.8
0609	.0	2.2	.7	.0	.0	.0	.0	2.9	.7	.4	2.2	.0	5.4	.0	88.5
12015	.0	.6	.6	.0	.0	.0	.0	1.1	.0	.9	1.4	.0	5.4	.0	91.2
18021	.7	.7	.3	.0	.0	.0	.0	1.7	1.7	2.7	1.0	.0	1.3	.0	91.7
TOT PCT	.5	1.4	.4	.0	.0	.0	.0	2.3	.7	1.0	1.6	.0	4.3	.0	90.1
TOT OBS:	1223														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	.3	.0	.1	.1	.0		.6	10.8		.3	.9	1.0	1.2	.5	.4	.0	.3
NE	.2	.5	.2	.8	.0	.0		.9	7.9		1.0	.4	1.1	.0	.5	.9	1.4	1.2
E	.2	1.9	1.5	.8	.0	.0		4.4	12.8		6.7	7.3	6.1	1.8	1.7	1.8	4.4	3.3
SE	.5	6.2	16.3	6.3	.3	.0		29.6	16.1		35.1	26.3	31.8	27.6	23.8	16.4	35.0	29.8
S	.6	10.8	25.2	7.7	.2	.0		44.6	15.1		37.0	41.8	44.9	44.4	51.8	51.5	42.4	44.8
SW	.3	6.9	7.8	.8	.2	.0		16.0	12.2		16.2	17.5	11.5	20.5	16.8	26.3	12.8	16.2
W	.3	1.4	.9	.1	.0	.0		2.7	9.5		2.1	5.3	2.3	2.4	3.4	2.6	1.5	3.6
NW	.1	.7	.2	.0	.0	.0		.9	7.2		.9	.4	1.1	1.5	1.0	.0	1.4	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.5							.5	.0		.8	.0	.3	.6	.3	.0	.7	.6
TOT OBS	55	566	1025	311	14	0	1971		14.5		378	113	342	165	398	114	296	165
TOT PCT	2.8	28.7	52.0	15.8	.7	.0			100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.3	.2	.1	.1	.0		.6	10.8	.4	1.1	.6	.1
NE	.4	.4	.1	.0	.0		.9	7.9	.8	.7	.7	1.3
E	.9	2.2	1.1	.2	.0		4.4	12.8	6.8	4.7	1.7	4.3
SE	2.0	13.1	12.9	1.5	.0		29.6	16.1	33.1	30.4	22.2	33.1
S	4.0	21.2	18.1	1.2	.0		44.6	15.1	38.1	44.7	51.7	43.3
SW	2.7	9.9	3.0	.3	.1		16.0	12.2	16.5	14.4	18.9	14.0
W	.9	1.5	.2	.0	.0		2.7	9.5	2.8	2.3	3.2	2.3
NW	.5	.3	.1	.0	.0		.9	7.2	.8	1.2	.6	.9
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	.5						.5	.0	.6	.4	.2	.7
TOT OBS	240	963	702	65	1	1971		14.5	491	507	512	461
TOT PCT	12.2	48.9	35.6	3.3	.1			100.0	100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1922-1959  
(OVER-ALL) 1880-1969

# FEBRUARY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						PCT FREQ	TOTAL OBS	
		1-3	4-10	11-21	22-33	34-47	48+			
00003	.6	3.1	31.0	51.9	12.8	.0	.0	13.9	100.0	491
00009	.4	2.2	27.8	51.3	17.0	1.4	.0	14.8	100.0	507
12015	.2	2.0	25.4	34.7	17.6	.2	.0	15.0	100.0	512
18021	.7	2.2	31.0	49.9	15.6	.7	.0	14.1	100.0	461
TOT	.9	4.6	56.6	102.5	31.1	1.4	.0	14.5		1971
PCT	.5	2.3	28.7	52.0	15.8	.7	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL OBS	MEAN CLOUD COVER
N	.2	.0	.4	.0		4.0
NE	.5	.2	.1	.1		3.0
E	4.2	.5	1.0	.4		2.0
SE	18.4	3.5	7.5	3.0		2.8
S	21.4	7.8	11.4	3.0		3.1
SW	3.9	3.1	4.5	1.1		4.0
W	.3	.5	.7	.4		5.0
NW	.3	.4	.4	.4		5.1
VAR	.0	.0	.0	.0		.0
CALM	.2	.1	.0	.0		1.6
TOT OBS	412	135	216	70	833	3.1
TOT PCT	49.5	16.2	25.9	8.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3999	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.5	
.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.7	
.0	.0	.0	.0	.5	.2	.0	.0	.0	.0	8.5	
.1	.1	.6	2.4	2.0	1.4	.6	.2	.4	24.4		
.0	.0	.2	1.7	4.8	2.0	1.4	1.1	.1	.0	32.3	
.0	.0	.0	.4	2.9	.4	.4	.0	.0	.0	8.4	
.0	.0	.0	.2	.3	.2	.1	.1	.0	.0	1.1	
.1	.0	.0	.0	.4	.2	.0	.0	.0	.0	.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
.2	1	3	26	95	42	24	18	3	3	816	833
.2	.1	.4	3.1	11.4	5.0	2.9	2.2	.4	.4	73.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >4500	.7	.8	.8	.8	.8	.8	.8	.8
= OR >3000	2.2	3.0	3.0	3.0	3.0	3.0	3.0	3.0
= OR >2500	4.8	5.9	5.9	5.9	5.9	5.9	5.9	5.9
= OR >2000	9.3	10.9	11.0	11.0	11.0	11.0	11.0	11.0
= OR >1000	17.8	21.7	22.2	22.2	22.2	22.2	22.2	22.2
= OR >600	20.5	24.8	25.4	25.4	25.4	25.4	25.4	25.4
= OR >300	20.8	25.1	25.7	25.7	25.7	25.7	25.7	25.7
= OR >150	20.9	25.2	25.8	25.8	25.8	25.8	25.8	25.8
= OR >0	21.1	25.4	26.0	26.1	26.1	26.1	26.2	26.2
TOTAL	176	212	217	218	218	218	219	219

TOTAL NUMBER OF OBS: 836

PCT FREQ NH <5/8: 73.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	TOTAL
									OBS
31.5	14.9	11.1	7.4	7.4	6.5	7.9	6.8	6.4	928

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1880-1969

FEBRUARY

AREA 0018 PERTH NW  
29.9S 112.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1
1<2	PCP	.0	.0	.0	.2	*	*	.0	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.0	.2	1.4	.7	.0	.1	.0	.0	.0	2.5
	TOT %	.0	.0	.0	.4	1.4	.8	.0	.1	.0	.0	.0	2.7
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.8	.5	.1	.0	.0	.0	.0	.0	1.4
	TOT %	.0	.0	.0	.8	.5	.1	.0	.0	.0	.0	.0	1.4
5<10	PCP	.1	.0	.0	.2	.6	.5	.4	*	.0	.0	.0	1.9
	NO PCP	*	.1	.8	6.4	10.1	6.4	1.2	.2	.0	.0	.0	25.3
	TOT %	.2	.1	.8	6.6	10.7	6.9	1.6	.2	.0	.0	.0	27.2
10+	PCP	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.2
	NO PCP	.4	.7	3.9	20.3	32.0	8.9	1.1	.8	.0	.2	.0	68.4
	TOT %	.4	.7	3.9	20.3	32.1	8.9	1.2	.8	.0	.2	.0	68.5
TOT OBS													1207
TOT PCT		.6	.8	4.6	28.2	44.8	16.7	2.8	1.1	.0	.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	*	*	.0	.0	.1	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	*	.1	.1	.0	.1	.0	.0	.2	.2
1<2	0-3	.0	.0	.0	.1	.1	.0	.1	.0	.0	.0	.0	.2
	4-10	.0	.1	*	.2	.3	.4	*	*	.0	.0	.1	1.1
	11-21	.0	.0	.0	.4	1.5	.3	.0	.1	.0	.0	.0	2.2
	22+	.0	.0	.0	.3	.2	.1	.0	.0	.0	.0	.0	.6
	TOT %	.0	.1	*	.9	2.1	.8	.1	.1	.0	.0	.4	4.1
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.4	.4	.1	.0	.0	.0	.0	.0	.9
	22+	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.5
	TOT %	.0	.0	.0	.8	.7	.1	.0	.0	.0	.0	.1	1.6
5<10	0-3	*	.0	.1	.1	.3	.1	.1	*	.0	.1	.8	
	4-10	.1	.1	.4	1.0	3.0	2.7	.5	.1	.0	.0	.8	8.0
	11-21	.0	*	.3	5.0	6.5	3.7	.8	.1	.0	.0	16.4	
	22+	.0	.0	.1	1.9	2.2	.5	.0	.0	.0	.0	.4	4.7
	TOT %	.2	.1	.9	8.0	12.0	7.1	1.4	.2	.0	.1	29.9	
10+	0-3	.1	.1	.2	.4	.3	.2	.1	.0	.0	.3	1.7	
	4-10	.2	.4	1.1	4.3	6.9	3.6	.8	.6	.0	.0	17.9	
	11-21	.0	.1	1.2	11.1	17.3	3.9	.2	*	.0	.0	33.8	
	22+	.0	.0	.7	4.1	5.4	.4	.1	.0	.0	.0	10.7	
	TOT %	.3	.6	3.3	20.0	29.9	8.0	1.2	.6	.0	.3	64.1	
TOT OBS													1668
TOT PCT		.5	.8	4.3	29.7	44.7	16.0	2.7	.9	.0	.4	100.0	

## FEBRUARY

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1880-1969

AREA 0018 PERTH NW  
29.95 112.86

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	0/0	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.9	.5	.0	3.3	11.7	7.5	3.8	1.9	.5	.5	30.5	69.5	213
06009	.0	.0	.4	2.6	8.2	2.6	4.3	2.6	.0	.4	21.1	78.9	232
12015	.5	.0	.5	3.3	13.1	1.9	1.4	1.9	.5	.0	23.0	77.0	213
18021	.0	.0	.4	2.6	9.9	7.3	1.3	1.7	.9	.4	24.5	75.5	233
TOT	3	1	3	26	95	43	24	18	4	3	220	671	891
PCT	.3	.1	.3	2.9	10.7	4.0	2.7	2.0	.4	.3	24.7	75.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.5	5.3	1.2	28.6	64.2	419
06009	.0	.5	3.4	2.2	28.5	65.5	417
12015	.0	.0	5.6	1.3	35.6	57.6	450
18021	.3	.0	1.8	1.5	27.1	69.3	398
TOT	2	4	68	26	507	1077	1684
PCT	.1	.2	4.0	1.5	30.1	64.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	1.0	1.5	5.9	26.7	67.3	202
06009	.0	.5	4.1	18.7	77.2	219
12015	.5	1.0	5.0	19.6	75.4	199
18021	.0	.5	5.1	21.8	73.1	216
TOT	3	7	42	181	613	836
PCT	.4	.8	5.0	21.7	73.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.4	.8	.6	.2	24	2.0
75/79	.0	.0	.0	.8	2.0	7.8	5.2	1.9	209	17.6
70/74	.0	.0	.2	.9	5.8	13.2	20.5	10.8	609	51.3
65/69	.0	.0	.0	.4	5.3	10.2	9.7	1.6	328	27.7
60/64	.0	.0	.0	.2	.4	.3	.3	.1	15	1.3
55/59	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
TOTAL	0	0	2	32	166	382	431	173	1186	100.0
PCT	.0	.0	.2	2.7	14.0	32.2	36.3	14.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80/84	.0	.0	.2	.6	.6	.3	.1	.1	.0	.0
75/79	.1	.3	2.0	6.9	5.8	1.7	.4	.2	.0	.2
70/74	.2	.4	2.1	14.7	23.7	8.4	1.2	.5	.0	.3
65/69	.2	.0	.3	6.4	13.7	5.5	1.3	.2	.0	.0
60/64	.0	.0	.1	.6	.2	.4	.0	.0	.0	.0
55/59	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOTAL	.5	.7	4.7	29.2	44.1	16.5	2.9	1.0	.0	.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	82	78	71	66	64	61	71.6	480
06009	85	82	80	73	68	66	65	73.0	480
12015	85	81	77	71	66	64	63	71.2	507
18021	81	78	76	70	66	63	59	70.2	464
TOT	86	81	78	71	66	64	59	71.5	1931

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	3.2	13.9	31.8	34.6	16.4	79	280
06009	.0	5.7	20.7	39.0	28.3	6.3	75	300
12015	.0	1.9	9.0	30.7	42.5	15.8	80	322
18021	.0	1.0	12.2	27.1	39.0	20.7	81	295
TOT	0	35	166	385	434	177	79	1197

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1880-1969

# FEBRUARY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	51 54	65 68	65 72	73 76	77 80	81 84	85 88	TOT	# FOG	WU FOG
14/16	.0	.0	.0	.0	.0	.0	.3	.0	3	.0	.3
11/13	.0	.0	.0	.0	.2	.0	.1	.1	4	.0	.4
9/10	.0	.0	.0	.0	.1	.3	.3	.2	9	.0	.9
7/8	.0	.0	.0	.1	.2	.4	.6	.0	13	.2	1.1
6	.0	.0	.0	.0	.3	.7	.0	.0	10	.0	1.0
5	.0	.0	.1	.3	.4	.7	.3	.0	18	.0	1.8
4	.0	.0	.1	.2	2.4	1.0	.1	.0	38	.1	3.6
3	.0	.0	.3	.8	4.1	1.3	.1	.0	67	.2	6.4
2	.0	.0	.1	1.8	4.8	1.1	.1	.0	80	.1	7.8
1	.0	.0	.6	4.6	5.2	1.0	.0	.0	116	.4	11.0
0	.0	.0	1.3	8.1	3.8	.4	.0	.0	138	.1	13.5
-1	.0	.0	2.0	8.5	3.0	.3	.0	.0	139	.2	13.5
-2	.0	.0	3.7	7.0	1.5	.1	.0	.0	125	.1	12.2
-3	.0	.0	3.9	5.6	.9	.0	.0	.0	106	.0	10.4
-4	.0	.5	3.3	3.3	.1	.1	.1	.0	76	.2	7.3
-5	.0	.3	1.7	1.5	.0	.0	.0	.0	35	.1	3.3
-6	.0	.1	.7	.9	.0	.0	.0	.0	17	.0	1.7
-7/-8	.0	.7	.8	.2	.1	.0	.0	.0	18	.0	1.8
-9/-10	.0	.0	.1	.0	.0	.0	.0	.0	1	.0	.1
-11/-13	.1	.1	.0	.0	.0	.0	.0	.0	2	.0	.2
-14/-16	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1	18	190	435	275	74	20	3	1016	1.7	98.3
PCT	.1	1.8	18.7	42.8	27.1	7.3	2.0	.3	100.0	1.7	98.3

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.4	.0	.0	.0	.0	.4	.0	.3	.0	.0	.0	.0	.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.7	.0	.0	.0	.0	.7	.0	.5	.2	.0	.0	.0	.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.5	.6	.0	.0	.0	.0	1.1
1-2	.0	1.3	.7	.0	.0	.0	2.0	.0	3.3	2.0	.0	.0	.0	5.3
3-4	.0	.2	.6	.0	.0	.0	.8	.0	1.4	3.2	.2	.0	.0	4.8
5-6	.0	.0	.7	.0	.0	.0	.7	.0	.2	7.0	2.0	.0	.0	9.2
7	.0	.0	.2	1.6	.0	.0	1.8	.0	.3	3.5	3.0	.0	.0	6.8
8-9	.0	.0	.0	.2	.0	.0	.2	.0	.0	.1	2.5	.4	.0	3.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.3	5.2	2.1	.0	.0	6.0	.5	5.7	15.7	8.4	.4	.0	30.8



PERIOD: (OVER-ALL) 1963-1969

FEBRUARY

AREA 0018 PERTH NW  
29.95 112.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW						
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.6	.2	.0	.0	.0	1.2	.2	.2	.0	.0	.0	.0	.4
1-2	.2	6.1	1.1	.0	.0	.0	7.4	.0	2.6	.5	.0	.0	.0	3.1
3-4	.0	2.4	8.5	.0	.0	.0	10.9	.0	.9	1.8	.0	.0	.0	2.7
5-6	.0	.2	12.4	4.1	.0	.0	16.6	.0	.1	3.4	.0	.0	.0	3.5
7	.0	.4	2.7	2.9	.0	.0	6.0	.0	.0	.7	.1	.0	.0	.8
8-9	.0	.2	.6	.4	.2	.0	1.4	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.3	.0	1.2	.0	.0	1.5	.0	.1	.0	.0	.0	.0	.1
12	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.2	.4	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	10.2	25.6	9.6	.2	.0	46.3	.2	3.9	6.5	.1	.0	.0	10.7

HGT	W							NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.2	.0	.0	.0	.0	.2	.0	1.1	.0	.0	.0	.0	.1	99.8
1-2	.0	1.1	.4	.0	.0	.0	1.5	.0	.6	.0	.0	.0	.0	.6	
3-4	.0	.2	.2	.0	.0	.0	.4	.0	.0	.1	.0	.0	.0	.1	
5-6	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
7	.0	.2	.2	.0	.0	.0	.4	.0	.0	.2	.0	.0	.0	.2	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	1.7	1.0	.0	.0	.0	2.7	.0	1.7	.3	.0	.0	.0	2.0	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.6	2.9	.2	.0	.0	.0	4.7	448
1-2	.2	15.6	4.7	.0	.0	.0	20.5	
3-4	.0	5.4	14.3	.2	.0	.0	19.9	
5-6	.0	.4	23.7	6.0	.0	.0	30.1	
7	.0	.9	7.8	7.6	.0	.0	16.3	
8-9	.0	.2	.7	3.1	.7	.0	4.7	
10-11	.0	.4	.0	1.6	.0	.0	2.0	
12	.0	.0	.0	.7	.0	.0	.7	
13-16	.0	.0	.2	.4	.0	.0	.7	
17-19	.0	.0	.0	.4	.0	.0	.4	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.8	25.9	51.6	20.1	.7	.0	100.0	

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.0	6.0	6.3	4.0	1.6	.9	.4	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	141
6-7	.0	.7	4.7	10.0	7.3	3.4	2.8	.9	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	208
8-9	.0	.4	.9	3.4	6.0	3.5	4.4	1.3	1.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	147
10-11	.0	.1	1.8	2.3	3.1	1.8	.7	.7	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	76
12-13	.0	.0	.0	.7	1.2	.9	.9	.1	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32
>13	.0	.0	.0	.3	.1	.1	.3	.4	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	14
INDET	.1	.6	2.5	1.2	3.1	.9	.0	.1	.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	63
TOTAL	8	54	99	145	148	87	71	26	31	8	2	0	2	0	0	0	0	0	0	0	681
PCT	1.2	7.9	14.5	21.3	21.7	12.8	10.4	3.8	4.6	1.2	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	100.0

## MARCH

PERIOD: (PRIMARY) 1921-1971  
(OVER-ALL) 1855-1971

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
N	4.2	.0	16.9	.0	.0	.0	.0	21.1	.0	4.2	.0	.0	16.9	.0
NE	1.6	.0	.0	.0	.0	.0	.0	1.6	.0	8.1	.0	.0	9.7	.0
E	3.1	1.1	.0	.0	.0	.0	.0	4.2	.0	1.1	.0	.0	1.7	.0
SE	1.2	.4	.3	.0	.0	.0	.0	1.9	.0	1.0	.7	.0	2.3	.0
S	.7	.5	.6	.0	.0	.0	.0	1.8	.1	1.1	1.5	.0	4.3	.0
SW	.3	1.6	1.0	.0	.0	.0	.0	2.9	.1	1.6	1.3	.0	1.4	.0
W	.0	4.6	.9	.0	.0	.0	.0	5.5	1.8	1.8	6.4	.0	1.8	.0
NW	.0	1.5	.0	.0	.0	.0	.0	1.5	2.9	2.9	1.5	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.7	.0	.0	.0
TOT PCT	1.0	.8	.7	.0	.0	.0	.0	2.5	.2	1.3	1.4	.0	3.1	.0
TOT OBS:	1463													

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
00003	1.0	.3	.8	.0	.0	.0	.0	2.0	.5	.8	.3	.0	2.8	.0
06009	.9	1.2	1.5	.0	.0	.0	.0	3.6	.0	.0	2.1	.0	4.6	.0
12015	.2	.9	.5	.0	.0	.0	.0	1.7	.0	.7	2.4	.0	2.8	.0
18021	2.0	.9	.6	.0	.0	.0	.0	3.5	.3	3.8	.9	.0	2.6	.0
TOT PCT	1.0	.8	.8	.0	.0	.0	.0	2.6	.2	1.3	1.4	.0	3.2	.0
TOT OBS:	1489													

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	.2	.5	.1	*	.0	.0		.9	8.4	1.5	1.4	.9	.5	.4	.7	.9	.7
NE	.1	.7	.3	*	.0	.0		1.1	8.8	1.6	1.7	1.4	.3	.6	.7	1.3	.7
E	.2	2.4	2.2	.6	.0	.0		5.4	12.1	9.2	10.2	4.3	2.7	3.7	3.9	3.7	5.5
SE	.4	6.2	18.3	8.4	.8	.0		34.1	17.3	40.7	29.0	37.5	31.0	28.8	26.8	34.3	35.3
S	.4	10.0	22.6	5.2	.3	.0		38.5	15.0	32.1	38.3	37.7	37.9	45.1	43.4	38.9	36.8
SW	.5	6.0	6.2	.8	.1	.0		13.6	12.0	9.3	12.4	12.7	21.6	15.3	17.7	11.9	13.4
W	.3	1.7	1.4	.2	.0	.0		3.6	10.8	3.2	2.6	2.6	3.8	3.5	5.0	4.6	4.5
NW	.2	1.1	.7	.1	.0	.0		2.1	9.7	1.6	4.5	2.2	1.8	1.8	1.1	2.5	2.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.7							.7	.0	.4	.0	.7	.5	.8	.7	1.9	.5
TOT OBS	73	684	1245	371	29	0	2402		14.7	499	145	413	197	485	141	310	212
TOT PCT	3.0	28.5	51.8	15.4	1.2	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	.5	.2	.2	.0	.0	.0	.9	8.4	1.4	.8	.5	.8	
NE	.4	.6	.1	*	.0	.0	1.1	8.8	1.6	1.0	.6	1.1	
E	1.4	2.7	1.2	.1	.0	.0	5.4	12.1	9.4	3.8	3.7	4.5	
SE	1.9	13.9	14.7	3.5	.1	.0	34.1	17.3	38.1	35.4	28.3	34.7	
S	3.3	19.2	14.2	1.9	*	.0	38.5	15.0	33.5	37.8	44.7	38.0	
SW	2.4	7.9	3.0	.2	.0	.0	13.6	12.0	10.4	15.5	15.8	12.5	
W	1.1	1.9	.6	.1	.0	.0	3.6	10.8	3.1	3.0	3.9	4.5	
NW	.8	1.1	.2	*	.0	.0	2.1	9.7	2.2	2.1	1.6	2.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.7					.0	.7	.0	.3	.7	.8	1.3	
TOT OBS	300	1139	820	141	2	2402		14.7	644	610	626	522	
TOT PCT	12.5	47.4	34.1	5.9	.1		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1921-1971  
(OVER-ALL) 1855-1971

MARCH

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOURL	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
0000	.3	3.0	31.5	50.3	13.8	.8	.0	14.3	100.0	644
0600	.7	1.8	24.8	55.6	15.6	1.6	.0	15.2	100.0	610
1200	.8	1.6	28.0	52.1	16.6	1.0	.0	15.0	100.0	626
1800	1.3	2.9	29.3	49.0	15.9	1.5	.0	14.4	100.0	522
TOT	18	55	684	1245	371	29	0	14.7		2402
PCT	.7	2.3	28.5	51.8	15.4	1.2	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.3	.0	.2	.2		4.4
NE	.5	.2	.5	.1		4.1
E	3.5	.5	1.1	.3		2.4
SE	15.9	6.1	9.7	2.9		3.3
S	16.0	7.5	13.0	3.1		3.6
SW	3.9	2.8	4.5	1.1		4.1
W	.5	.4	1.7	.3		5.4
NW	.7	.3	.9	.1		4.1
VAR	.0	.0	.0	.0		.0
CALM	1.0	.1	.2	.1		2.2
TOT OBS	394	167	296	76	933	3.5
TOT PCT	42.2	17.9	31.7	8.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)  
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.5	
.0	.0	.0	.1	.1	.1	.0	.0	.1	.0	.9	
.0	.0	.0	.0	.2	.2	.0	.1	.1	.1	4.6	
.0	.0	.1	1.5	3.5	2.9	1.1	.2	.2	.2	24.9	
.0	.0	.1	1.4	4.1	3.1	1.5	.8	.1	.3	28.2	
.0	.0	.2	.6	1.7	1.5	.9	.2	.0	.2	6.9	
.0	.0	.1	.1	.5	.6	.1	.1	.0	.1	1.3	
.0	.0	.0	.1	.4	.0	.1	.0	.0	.0	1.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	1.2	
.0	.0	.4	.36	.99	.80	.36	.12	.5	.9	652	933
.0	.0	.4	3.9	10.6	8.6	3.9	1.3	.5	1.0	69.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR > 6500	1.3	1.6	1.6	1.6	1.6	1.6	1.6	1.6
= OR > 5000	2.6	3.0	3.0	3.0	3.0	3.0	3.0	3.0
= OR > 3500	6.2	6.9	6.9	6.9	6.9	6.9	6.9	6.9
= OR > 2000	13.1	15.3	15.3	15.3	15.3	15.3	15.3	15.3
= OR > 1000	22.8	25.8	25.8	25.8	25.8	25.8	25.8	25.8
= OR > 600	25.1	29.5	29.5	29.5	29.5	29.5	29.5	29.5
= OR > 300	25.5	29.9	29.9	29.9	29.9	29.9	29.9	29.9
= OR > 150	25.5	29.9	29.9	29.9	29.9	29.9	29.9	29.9
= OR > 0	25.5	29.9	29.9	29.9	29.9	29.9	29.9	29.9
TOTAL	24.1	28.3	28.3	28.3	28.3	28.3	28.3	28.3

TOTAL NUMBER OF OBS: 945

PCT FREQ NH < 5/8: 70.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
24.2	14.9	11.2	10.9	8.5	6.4	7.9	8.6	7.3	.0	999

PERIOD: (PRIMARY) 1921-1971  
(OVER-ALL) 1855-1971

MARCH

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.1	.3	.1	.1	.0	.0	.0	.6	
	TOT %	.0	.0	.0	.1	.3	.1	.1	.0	.0	.0	.6	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.1	*	*	.5	.7	.2	.0	.0	.0	.0	1.6	
	TOT %	.1	*	*	.5	.7	.2	.0	.0	.0	.0	1.6	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.1	.0	.0	.3	.5	.0	.0	.0	.0	.0	1.0	
	TOT %	.1	.0	.0	.3	.5	.0	.0	.0	.0	.0	1.0	
5<10	PCP	.2	.0	.2	.6	.4	.3	.2	*	.0	.0	1.9	
	NO PCP	.1	.4	1.9	8.1	9.6	3.4	1.2	.8	.0	.1	25.7	
	TOT %	.3	.4	2.1	8.7	9.9	3.8	1.4	.8	.0	.1	27.6	
10+	PCP	.1	*	.1	*	.3	*	.0	.0	.0	.0	.5	
	NO PCP	.6	.6	4.0	23.4	26.6	8.9	2.2	1.5	.0	.9	68.7	
	TOT %	.7	.6	4.0	23.5	26.9	9.0	2.2	1.5	.0	.9	69.3	
TOT OBS													1461
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.3	.3
	11-21	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.2	.3	.1	.1	.0	.0	.0	.7	.7
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.1	*	*	*	.2	.2	.0	.1	.0	.0	.6	.6
	11-21	.1	.0	.0	.2	.5	*	.0	.0	.0	.0	.8	.8
	22+	.0	.0	.1	.2	.1	.0	.0	.0	.0	.0	.4	.4
	TOT %	.1	*	.1	.5	.8	.2	.0	.1	.0	.1	1.8	1.8
2<5	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	4-10	.1	.0	*	.1	.4	.0	.0	.0	.0	.0	.6	.6
	11-21	.0	*	*	.2	.1	.0	.0	.0	.0	.0	.3	.3
	22+	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	.1
	TOT %	.1	*	.1	.3	.5	.0	.0	.0	.0	.0	1.0	1.0
5<10	0-3	.0	.1	.1	.2	.2	.2	.1	.0	.0	.1	.8	.8
	4-10	.2	.3	.9	1.6	2.5	1.7	.7	.4	.0	.0	8.2	8.2
	11-21	.1	.1	.8	4.9	6.4	2.0	.6	.3	.0	.0	15.0	15.0
	22+	.1	.0	.3	3.6	2.3	.3	.1	.1	.0	.0	6.7	6.7
	TOT %	.3	.4	2.1	10.2	11.5	4.2	1.5	.8	.0	.1	30.8	30.8
10+	0-3	.1	*	.2	.3	.2	.2	.1	.1	.0	.7	1.7	1.7
	4-10	.4	.4	1.8	4.4	7.1	3.7	.8	.6	.0	.0	19.0	19.0
	11-21	.1	.2	1.5	13.1	15.7	3.9	.8	.4	.0	.0	35.7	35.7
	22+	.0	*	.2	5.3	2.9	.7	.1	.1	.0	.0	9.3	9.3
	TOT %	.5	.6	3.6	23.1	25.8	8.5	1.8	1.2	.0	.7	65.8	65.8
TOT OBS													1978
TOT PCT													100.0

PERIOD: (PRIMARY) 1921-1971  
(OVER-ALL) 1855-1971

MARCH

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.4	5.0	11.2	9.7	5.8	3.5	.8	.0	36.4	63.6	258
06009	.0	.0	1.2	1.2	13.0	7.7	4.5	.0	.8	1.6	30.1	69.9	246
12015	.0	.0	.0	4.7	9.4	7.3	.9	.9	.4	.4	24.0	76.0	233
18021	.0	.0	.0	3.7	6.6	7.8	3.7	.8	.4	1.6	24.6	75.4	244
TOT	0	0	4	36	99	80	37	13	6	9	284	697	981
PCT	.0	.0	.4	3.7	10.1	8.2	3.8	1.3	.6	.9	29.0	71.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.2	1.9	1.1	27.8	69.0	539
06009	.0	.4	2.0	.6	32.2	64.8	441
12015	.0	1.5	1.7	1.9	33.8	61.1	532
18021	.0	.7	1.4	.2	30.0	67.7	443
TOT	0	14	35	20	621	1315	2005
PCT	.0	.7	1.7	1.0	31.0	65.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.4	6.1	32.4	61.5	247
06009	.0	1.3	3.3	28.3	68.3	240
12015	.0	.0	4.9	19.9	75.2	226
18021	.0	.0	3.9	22.0	74.1	232
TOT	0	4	43	244	658	945
PCT	.0	.4	4.6	25.8	69.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.1	.0	.0	.1	.0	.0	2	.2
80/84	.0	.0	.0	.2	.4	.6	.1	.1	17	1.3
75/79	.0	.0	.0	1.1	2.0	4.8	3.6	1.9	177	13.4
70/74	.0	.0	.3	1.4	7.6	18.4	16.6	7.7	661	50.0
65/69	.0	.0	.0	1.5	6.9	10.9	9.6	3.8	432	32.7
60/64	.0	.0	.0	.1	.8	1.0	.3	.3	33	2.5
TOTAL	0	0	5	55	235	447	398	182	1322	100.0
PCT	.0	.0	.4	4.2	17.8	33.8	30.1	13.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
.0	.0	.3	.3	.5	.1	.0	.0	.0	.0
.3	.3	1.3	4.3	5.1	1.0	.3	.6	.0	.2
.2	.6	2.6	17.1	18.9	6.4	2.0	1.9	.0	.5
.0	.1	1.1	11.3	13.3	5.2	1.4	.1	.0	.2
.0	.0	.2	.8	.8	.7	.0	.0	.0	.0
.5	1.0	5.5	33.8	35.7	13.3	3.6	2.6	.0	.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	82	78	71	66	63	62	71.4	621
06009	86	82	79	72	67	65	64	72.4	589
12015	83	79	77	71	66	64	61	70.9	674
18021	79	76	75	69	64	63	60	69.5	522
TOT	86	81	77	71	66	63	60	71.1	2356

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	4.9	18.5	31.2	32.9	12.4	77	346
06009	.0	7.2	25.4	38.6	18.9	9.9	74	334
12015	.0	2.6	11.1	34.4	35.0	16.9	79	343
18021	.0	3.5	15.2	31.3	33.2	16.8	79	316
TOT	0	61	235	454	402	187	78	1339



## MARCH

PERIOD: (PRIMARY) 1921-1971  
(OVER-ALL) 1855-1971

TABLE 17

AREA 0018 PERTH NW  
29.95 112.7E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WU FOG
14/16	.0	.0	.0	.1	.0	.0	.1	2	.0	.2
11/13	.0	.0	.0	.1	.3	.1	.0	6	.0	.5
9/10	.0	.0	.1	.1	.5	.0	.1	10	.0	.8
7/8	.0	.0	.1	.5	.6	.1	.0	16	.0	1.3
6	.0	.0	.2	.4	.2	.1	.0	12	.0	1.0
5	.0	.1	.0	.6	.6	.0	.0	17	.0	1.4
4	.0	.0	.2	1.1	1.2	.2	.0	34	.1	2.6
3	.0	.1	.6	3.0	1.4	.0	.0	63	.1	4.9
2	.1	.3	2.2	3.7	.8	.0	.0	90	.2	6.9
1	.0	.5	4.3	4.3	.4	.0	.0	119	.1	9.4
0	.1	1.4	7.9	4.1	.2	.2	.0	174	.6	13.3
-1	.0	2.0	9.4	2.2	.1	.0	.0	172	.2	13.4
-2	.1	4.2	7.3	1.4	.2	.0	.0	166	.2	13.0
-3	.4	5.4	4.9	.7	.1	.0	.0	144	.1	11.4
-4	.5	4.3	2.4	.5	.0	.0	.0	96	.0	7.6
-5	.5	2.5	1.8	.2	.0	.0	.0	62	.0	4.9
-6	.5	1.5	.6	.0	.0	.0	.0	33	.0	2.6
-7/-8	.4	1.4	.6	.0	.0	.0	.0	30	.0	2.4
-9/-10	.2	.4	.0	.0	.0	.0	.0	8	.0	.6
-11/-13	.2	.1	.0	.0	.0	.0	.0	3	.0	.2
TOTAL	36	302	536	290	83	8	2	1257	20	1237
PCT	2.9	24.0	42.6	23.1	6.6	.6	.2	100.0	1.6	98.4

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.6
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.0	.1	.1	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.3	.0	.0	.0	.3	.0	.2	.7	.1	.0	.0	1.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.3	.0	.0	.0	.0	1.3	.2	.5	.0	.0	.0	.0	.7
1-2	.2	.6	.0	.0	.0	.0	.9	.0	2.5	1.4	.0	.0	.0	3.9
3-4	.0	.6	1.4	.0	.0	.0	2.0	.0	.2	4.9	.4	.0	.0	5.5
5-6	.0	.0	.6	.2	.0	.0	.8	.0	.5	6.9	1.1	.0	.0	8.5
7	.0	.0	.3	.2	.0	.0	.5	.0	.0	4.3	2.5	.0	.0	6.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	1.5	.0	.0	2.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	1.8	.0	.0	2.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	1.3	.0	.0	1.6
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	1.3	.9	.0	2.4
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.5	.0	.7
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.4
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.6	2.3	.3	.0	.0	5.4	.2	3.7	18.7	10.4	1.8	.0	34.8

PERIOD: (OVER-ALL) 1963-1971

MARCH

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8	.2	.5	.0	.0	.0	.0	.8
1-2	.0	5.0	3.5	.0	.0	.0	8.5	.0	1.4	.5	.0	.0	.0	1.9
3-4	.0	2.5	6.9	1.1	.0	.0	10.6	.0	1.8	2.5	.4	.0	.0	4.7
5-6	.0	.5	8.8	1.9	.0	.0	11.2	.0	.1	1.3	.2	.0	.0	1.6
7	.0	.0	3.9	.4	.0	.0	4.3	.0	.0	.5	.0	.0	.0	.5
8-9	.0	.0	1.6	1.5	.0	.0	3.1	.0	.0	.1	.4	.0	.0	.5
10-11	.0	.0	.0	.6	.4	.0	1.0	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.4	.2	.0	.6	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
17-19	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	8.8	24.7	6.2	.8	.0	40.5	.2	3.8	5.1	1.1	.0	.0	10.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
1-2	.2	.5	.0	.0	.0	.0	.8	.0	.2	.4	.0	.0	.0	.6	
3-4	.0	.5	.6	.0	.0	.0	1.1	.0	.5	.2	.0	.0	.0	.8	
5-6	.0	.2	1.3	.0	.0	.0	1.5	.0	.0	.5	.2	.0	.0	.8	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	1.5	2.0	.0	.0	.0	3.7	.0	.8	1.2	.4	.0	.0	2.4	98.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.4	3.2	.0	.0	.0	.0	5.6	
1-2	.4	10.5	5.8	.0	.0	.0	16.7	
3-4	.0	6.2	17.2	1.9	.0	.0	25.3	
5-6	.0	1.3	19.7	3.6	.0	.0	24.7	
7	.0	.0	9.0	3.0	.0	.0	12.0	
8-9	.0	.0	2.1	3.4	.0	.0	5.6	
10-11	.0	.0	.4	2.4	.4	.0	3.2	
12	.0	.0	.2	1.9	.2	.0	2.4	
13-16	.0	.0	.4	1.3	.9	.0	2.6	
17-19	.0	.0	.0	.2	.6	.0	.9	
20-22	.0	.0	.0	.6	.0	.0	.6	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.4	.0	.4	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.8	21.2	54.9	18.5	2.6	.0	100.0	466

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.6	4.1	7.9	4.3	3.3	1.0	.1	.4	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	163	4
6-7	.0	1.4	3.9	8.8	7.3	2.8	2.8	1.0	.6	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	209	6
8-9	.0	.1	.7	3.6	6.5	3.0	2.3	1.2	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	143	8
10-11	.0	.0	.6	1.5	2.2	3.9	1.8	.7	1.1	.0	.8	.0	.1	.0	.0	.0	.0	.0	.0	92	9
12-13	.0	.0	.8	.6	.7	1.5	.4	.7	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	37	8
>13	.0	.0	.0	.1	.1	.1	.0	.6	.7	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	14	13
INDFT	1.1	1.0	1.7	2.1	1.5	.4	.8	.1	.7	.6	.0	.0	.3	.0	.0	.0	.0	.0	.0	74	7
TOTAL	12	48	112	152	157	92	60	34	38	9	9	0	3	0	0	0	0	0	0	728	7
PCT	1.7	6.6	15.4	20.9	21.6	12.7	8.3	4.7	5.2	1.2	1.2	.0	.4	.0	.0	.0	.0	.0	.0	100.0	

APRIL

PERIOD: (PRIMARY) 1927-1969  
(OVER-ALL) 1859-1969AREA 0018 PERTH NW  
29.95 112.8E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	1.7	1.1	.0	.0	.0	.0	.0	2.8	.0	7.8	2.2	.0	.0	.0	87.2
NE	.0	.7	4.7	.0	.0	.0	.0	5.4	1.4	1.8	2.9	.0	.0	.0	88.5
E	.8	.0	3.8	.0	.0	.0	.0	4.6	1.6	2.4	.0	.0	.8	.0	90.6
SE	1.4	.1	.0	.0	.0	.0	.0	1.5	.8	.8	.0	.0	.5	.0	96.6
S	1.7	1.9	.2	.0	.0	.0	.0	3.7	.3	1.1	1.1	.0	2.2	.3	91.2
SW	1.8	7.3	.5	.0	.0	.0	.0	9.6	2.5	.2	.5	.0	1.5	.0	85.7
W	2.9	9.6	1.9	.0	.0	.0	.0	13.6	2.1	.6	.4	.0	.0	.0	83.3
NW	2.3	3.9	1.5	.0	.0	.0	.0	7.7	6.2	2.3	1.5	.0	.0	.0	82.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.6	2.8	1.0	.0	.0	.0	.0	5.3	1.4	1.3	.7	.0	1.0	.1	90.4
TOT OBS:	1339														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
0000	1.4	3.0	.6	.0	.0	.0	.3	5.2	2.8	.0	.6	.0	1.1	.0	90.4
0600	1.4	1.4	1.0	.0	.0	.0	.0	3.8	.7	.0	.3	.0	1.7	.0	93.4
1200	1.5	4.1	1.0	.0	.0	.0	.0	6.3	1.3	2.8	1.5	.0	.8	.0	87.3
1800	2.1	2.1	1.2	.0	.0	.0	.0	5.5	.6	1.8	.3	.0	.3	.3	91.5
TOT PCT	1.6	2.8	.9	.0	.0	.0	.1	5.3	1.4	1.2	.7	.0	.9	.1	90.4
TOT OBS:	1371														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	.2	1.3	.6	.3	.1	.0		2.6	11.6		2.9	2.7	4.4	1.8	2.1	1.1	2.2	2.4
NE	.2	2.7	1.7	.3	.0	.0		4.9	10.8		6.9	5.7	5.1	1.2	3.4	1.4	6.3	6.0
E	.7	4.0	4.1	.5	.0	.0		9.2	11.0		12.8	8.6	9.6	5.3	6.7	9.8	8.3	11.1
SE	.6	9.5	14.7	3.1	.1	.0		28.0	13.5		29.7	24.4	27.1	24.9	26.7	26.4	30.9	30.2
S	1.2	10.5	10.8	2.6	.1	.0		25.2	12.5		21.3	26.7	24.6	33.6	28.4	27.9	23.2	21.5
SW	.9	7.1	5.4	2.1	.3	.0		15.8	12.6		14.9	16.6	13.8	19.6	16.3	20.7	13.3	17.5
W	.4	4.3	2.7	1.0	.2	.0		8.7	12.6		7.9	7.6	9.3	9.1	9.7	8.3	8.9	7.0
NW	.5	1.9	1.6	.2	.3	.0		4.5	12.2		2.6	6.1	5.5	4.7	5.4	2.9	5.6	2.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.1							1.1	.0		1.1	1.5	.6	.0	1.3	1.4	1.3	1.6
TOT OBS	127	914	919	220	24	0	2204		12.4		460	131	355	171	450	138	312	187
TOT PCT	5.8	41.5	41.7	10.0	1.1	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00	06	12	18
N	1.1	.9	.4	.2	*		2.6	11.6	2.8	3.5	1.8	2.3
NE	1.6	2.1	1.1	*	.0		4.9	10.8	6.6	3.8	2.9	6.2
E	2.4	5.2	1.6	*	.0		9.2	11.0	11.8	8.2	7.4	9.4
SE	3.6	15.8	7.9	.8	.0		28.0	13.5	28.6	26.4	26.6	30.7
S	4.6	13.6	6.5	.5	*		25.2	12.5	22.5	27.5	28.3	22.6
SW	3.6	8.2	3.0	1.0	*		15.8	12.6	15.3	15.7	17.3	14.9
W	2.2	4.0	1.7	.7	*		8.7	12.6	7.8	9.2	9.4	8.2
NW	1.3	2.1	.8	.3	*		4.5	12.2	3.4	5.2	4.8	4.5
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.1						1.1	.0	1.2	.4	1.4	1.4
TOT OBS	472	1145	505	78	4	2204		12.4	591	526	588	499
TOT PCT	21.4	52.0	22.9	3.5	.2		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1859-1969

APRIL

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	1.2	5.4	41.8	41.8	9.0	.8	.0	12.0	100.0	591
06009	.4	4.2	40.1	43.5	10.3	1.5	.0	12.8	100.0	526
12015	1.4	4.4	44.6	38.4	10.0	1.2	.0	12.2	100.0	588
18021	1.4	4.6	38.9	43.5	10.8	.8	.0	12.6	100.0	499
TOT	24	103	914	919	220	24	0	12.4		2204
PCT	1.1	4.7	41.5	41.7	10.0	1.1	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6	TOTAL DBS	MEAN CLOUD COVER
N	.4	.5	1.2	1.1		5.7
NE	1.8	.9	1.7	1.4		4.6
E	5.3	1.1	1.9	2.1		3.6
SE	11.7	5.4	9.1	3.0		3.7
S	6.7	3.6	8.7	3.1		4.3
SW	2.4	2.4	6.6	1.8		4.9
W	2.4	2.2	3.6	1.5		4.5
NW	1.0	1.7	1.3	1.1		4.7
VAR	.0	.0	.0	.0		.0
CALM	.4	.1	.3	.0		3.6
TOT DBS	288	160	307	137	892	4.2
TOT PCT	32.3	17.9	34.4	15.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	DBS
N	.0	.0	.1	.4	.4	.6	.1	.2	.0	.1	1.5	
NE	.0	.0	.0	.3	.5	.6	.3	.3	.0	.0	3.9	
E	.0	.0	.0	.3	.8	1.1	.4	.1	.0	.1	7.5	
SE	.0	.0	.2	.9	3.1	2.3	2.2	.7	.0	.0	19.8	
S	.0	.0	.1	1.3	2.6	2.6	1.3	.3	.0	.1	13.9	
SW	.0	.0	.1	1.2	2.2	1.1	.8	.2	.0	.2	7.3	
W	.2	.1	.0	.2	1.5	.8	.3	.3	.2	.0	6.2	
NW	.0	.0	.2	.2	1.0	.4	.1	.0	.0	.0	3.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.8	
TOT DBS	2	1	6	43	107	83	51	20	2	5	572	892
TOT PCT	.2	.1	.7	4.8	12.0	9.3	5.7	2.2	.2	.6	64.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.8	.8	.8	.8	.8	.8	.8	.8
>4000	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
>3500	8.2	8.8	8.8	8.8	8.8	8.8	8.8	8.8
>3000	16.4	18.6	18.0	18.0	18.1	18.1	18.1	18.1
>2500	26.8	29.8	29.9	29.9	30.0	30.0	30.0	30.0
>2000	30.7	34.6	34.7	34.7	34.8	34.8	34.8	34.8
>1500	30.9	35.1	35.3	35.3	35.4	35.4	35.4	35.4
>1000	31.0	35.2	35.4	35.4	35.6	35.6	35.6	35.6
>500	31.1	35.4	35.7	35.7	35.8	35.9	35.9	35.9
TOTAL	280	319	321	321	322	323	323	323

TOTAL NUMBER OF OBS: 900

PCT FREQ NH <5/8: 64.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	DBS	TOTAL DBS
	14.3	15.2	13.2	11.3	9.6	8.7	8.8	8.0	10.7	.2	990

APRIL

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1859-1969AREA 0018 PERTH NW  
29.9S 112.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
	TOT %	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
1/2<1	PCP	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	.1
	NO PCP	.0	.1	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2
	TOT %	.0	.1	.0	.0	.0	.1	.2	.0	.0	.0	.0	.4
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.1	.0	.1	.1	.1	.0	.0	.0	.0	.4
	TOT %	.0	.0	.1	.0	.1	.1	.1	.0	.0	.0	.0	.4
2<5	PCP	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1	.1
	NO PCP	.1	.0	.1	.3	.3	.1	.2	.0	.0	.0	1.0	1.0
	TOT %	.1	.0	.1	.3	.3	.1	.3	.0	.0	.0	1.2	1.2
5<10	PCP	.1	.1	.2	.1	.4	1.3	.7	.1	.0	.0	3.1	3.1
	NO PCP	.8	1.1	1.7	7.1	6.7	5.0	2.1	1.6	.0	.3	26.3	26.3
	TOT %	.9	1.2	1.9	7.2	7.1	6.3	2.8	1.8	.0	.3	29.4	29.4
10+	PCP	.0	.1	.2	.2	.5	.2	.5	.2	.0	.0	1.9	1.9
	NO PCP	2.3	3.8	7.1	19.4	15.5	8.9	5.9	2.9	.0	.7	66.6	66.6
	TOT %	2.3	3.9	7.4	19.6	16.0	9.1	6.4	3.1	.0	.7	68.5	68.5
TOT OBS													1338
TOT PCT													3.4 5.2 9.4 27.2 23.6 15.8 9.7 4.8 .0 1.0 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	.1
	TOT %	.0	.1	.0	.0	.0	.1	.2	.0	.0	.0	.3	.3
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.1	.1	.1	.0	.1	.0	.0	.0	.1	.3
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.1	.1	.3	.2	.1	.0	.0	.0	.7	.7
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.0	.1	.1	.1	.1	.2	.0	.0	.0	.5	.5
	11-21	.0	.0	.0	.2	.1	.1	.0	.0	.0	.0	.3	.3
	22+	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	.1
	TOT %	.1	.0	.1	.2	.2	.1	.2	.1	.0	.0	.9	.9
5<10	0-3	.1	.1	.1	.2	.5	.3	.1	.1	.0	.3	1.8	1.8
	4-10	.4	.9	1.0	3.5	3.6	2.6	1.1	.7	.0	.0	14.0	14.0
	11-21	.1	.4	1.0	3.8	4.1	2.2	.9	.6	.0	.0	13.2	13.2
	22+	.2	.0	.2	1.4	1.0	1.1	.4	.1	.0	.0	4.4	4.4
	TOT %	.8	1.4	2.4	8.9	9.3	6.3	2.5	1.5	.0	.3	33.4	33.4
10+	0-3	.2	.1	.4	.4	.4	.5	.3	.0	.0	.9	3.3	3.3
	4-10	.8	1.8	3.1	6.2	6.9	3.9	3.1	1.2	.0	.0	26.9	26.9
	11-21	.6	1.4	3.3	10.4	6.2	2.8	1.6	1.2	.0	.0	27.6	27.6
	22+	.2	.3	.3	1.8	1.6	1.3	.9	.3	.0	.0	6.8	6.8
	TOT %	1.9	3.6	7.0	18.9	15.2	8.5	6.0	2.7	.0	.9	64.6	64.6
TOT OBS													1855
TOT PCT													2.8 5.1 9.5 28.2 25.0 15.1 8.9 4.3 .0 1.2 100.0



APRIL

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1859-1969AREA 0018 PERTH NW  
29.95 112.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.4	.4	5.1	13.8	10.2	4.3	2.8	.0	1.2	38.2	61.8	254
06009	.0	.0	.8	7.0	8.2	8.2	7.4	1.6	.0	.4	33.6	66.4	244
12015	1.4	.0	.5	2.3	11.3	7.7	4.1	1.8	.5	.5	29.9	70.1	221
18021	.0	.0	.9	3.4	11.5	9.0	6.0	2.1	.4	.0	33.3	66.7	234
TOT	3	1	6	43	107	84	52	20	2	5	323	630	953
PCT	.3	.1	.6	4.5	11.2	8.8	5.5	2.1	.2	.5	23.9	66.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL
(GMT)							OBS
00003	.2	.6	1.2	.8	28.8	68.5	514
06009	.0	.2	.5	.2	34.9	64.2	430
12015	.4	.2	1.2	1.6	40.7	56.0	514
18021	.0	.2	.2	.9	31.1	67.6	444
TOT	3	6	15	17	645	1216	1902
PCT	.2	.3	.8	.9	33.9	63.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HR	<150	<600	<1000	1000+	NH <5/8	TOTAL
(GMT)	<500	<1	<5	AND 5+	AND 5+	OBS
00003	.0	1.3	7.1	34.3	58.6	239
06009	.0	1.3	9.0	26.1	65.0	234
12015	1.4	1.9	4.8	27.4	67.8	208
18021	.0	.9	5.0	31.1	63.9	219
TOT	3	12	59	268	573	900
PCT	.3	1.3	6.6	29.8	63.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL	PCT
									OBS	FREQ
85/89	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
80/84	.0	.0	.0	.1	.4	.1	.1	.0	8	.6
75/79	.0	.1	.0	1.1	1.7	2.6	3.1	.5	119	9.0
70/74	.0	.0	.3	2.4	7.4	12.7	11.5	5.7	534	40.3
65/69	.0	.0	.5	3.5	9.6	13.0	10.0	2.6	520	39.2
60/64	.0	.0	.0	1.3	4.4	2.3	1.3	1.1	138	10.4
55/59	.0	.0	.0	.1	.1	.0	.2	.1	6	.5
TOTAL	0	1	12	113	313	406	348	133	1326	100.0
PCT	.0	.1	.9	8.5	23.6	30.6	26.2	10.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	*	*	.0	.0	.0	.0
.1	.2	.2	.1	.0	.0	.1	.0	.0	.0
.7	.9	2.0	2.1	1.5	.6	.5	.3	.0	.4
1.8	2.8	4.5	11.0	9.8	4.0	3.5	2.5	.0	.4
.1	1.1	2.5	11.4	10.5	7.8	4.1	1.4	.0	.4
.1	.1	.7	3.3	2.2	2.8	1.2	.1	.0	.1
.0	.0	.0	.0	.1	.2	.1	.1	.0	.0
2.7	5.0	9.8	27.9	24.2	15.4	9.4	4.4	.0	1.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL
(GMT)									OBS
00003	86	80	77	70	63	59	55	69.8	581
06009	85	80	77	71	64	62	59	71.0	504
12015	79	77	75	69	63	60	60	69.3	588
18021	79	76	74	68	63	60	59	68.4	507
TOT	86	79	76	70	63	60	55	69.6	2180

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL
(GMT)								OBS
00003	.0	10.4	22.5	30.8	24.7	11.5	75	364
06009	.0	13.7	29.3	27.4	22.3	7.3	73	314
12015	.0	5.9	19.3	30.2	33.0	11.7	77	358
18021	.0	8.1	23.4	32.5	26.6	9.4	75	320
TOT	0	128	318	410	363	137	75	1356

APRIL

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1859-1969

TABLE 17

AREA 0018 PERTH NW  
29.95 112.8EPCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WU FOG
14/16	.0	.0	.0	.0	.0	.1	.0	.0	.0	1	.0	.1
11/13	.0	.0	.0	.0	.1	.1	.0	.2	.0	4	.0	.4
9/10	.0	.0	.0	.0	.0	.0	.2	.0	.0	2	.0	.2
7/8	.0	.0	.0	.0	.0	.2	.4	.0	.0	6	.0	.5
6	.0	.0	.0	.2	.0	.5	.5	.0	.0	12	.0	1.1
5	.0	.0	.0	.0	.0	.5	.5	.1	.1	13	.0	1.2
4	.0	.0	.0	.1	.0	1.1	.3	.0	.0	16	.0	1.5
3	.0	.0	.0	.5	.6	1.8	.1	.0	.0	34	.0	3.1
2	.0	.0	.2	.2	1.5	2.3	.5	.0	.0	51	.0	4.7
1	.0	.1	.0	.4	3.5	3.7	.5	.0	.0	89	.0	8.1
0	.0	.1	.1	2.4	5.9	4.4	.2	.0	.0	143	.2	12.9
-1	.0	.0	.5	3.4	6.8	2.0	.3	.0	.0	142	.0	13.0
-2	.0	.1	.6	4.2	5.9	.9	.0	.0	.0	129	.2	11.6
-3	.0	.0	.6	5.4	5.4	.2	.0	.0	.0	127	.3	11.3
-4	.0	.0	1.2	5.8	2.4	.2	.0	.0	.0	104	.1	9.4
-5	.0	.2	2.3	4.0	1.3	.2	.0	.0	.0	87	.0	7.9
-6	.0	.1	2.6	1.6	.6	.0	.0	.0	.0	57	.0	5.2
-7/-8	.1	.4	1.7	2.0	.5	.0	.0	.0	.0	51	.1	4.6
-9/-10	.0	.0	1.1	.5	.2	.0	.0	.0	.0	19	.0	1.7
-11/-13	.0	.1	.4	.1	.1	.0	.0	.0	.0	7	.0	.6
-14/-16	.1	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	2		124		381		37		1	1095	.8	1086
PCT	.2	1.0	11.3	30.9	34.8	18.1	3.4	.3	.1	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.6	.1	.1	.0	.0	.0	.0	.2
1-2	.0	.4	.2	.0	.0	.0	.6	.0	1.4	.3	.0	.0	.0	1.7
3-4	.0	.2	.9	.0	.0	.0	1.1	.0	.5	.9	.0	.0	.0	1.4
5-6	.0	.5	.6	.4	.2	.0	1.6	.0	.2	1.4	.1	.0	.0	1.7
8-9	.0	.0	.2	.2	.0	.0	.4	.0	.0	.5	.2	.0	.0	.8
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.2	.2	.0	.4	.0	.0	.0	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.2	.2	.0	.4	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.5	1.8	1.1	.5	.0	5.1	.1	2.3	3.1	1.0	.0	.0	6.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.4	.0	.0	.0	.0	.6	.0	.2	.0	.0	.0	.0	.2
1-2	.0	.2	.7	.0	.0	.0	.9	.0	3.4	1.9	.0	.0	.0	5.3
3-4	.0	.4	1.9	.0	.0	.0	2.3	.0	2.5	5.0	.2	.0	.0	7.7
5-6	.0	.4	1.5	.2	.0	.0	2.1	.0	.2	4.2	1.1	.0	.0	5.5
7	.0	.0	.9	.2	.0	.0	1.1	.0	.1	3.2	1.2	.0	.0	4.6
8-9	.0	.0	.2	.4	.0	.0	.6	.0	.0	.3	1.1	.0	.0	1.4
10-11	.0	.2	.0	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.2
12	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.7	5.4	.8	.0	.0	8.1	.0	6.4	14.9	3.7	.0	.0	25.0

PERIOD: (OVER-ALL) 1963-1969

APRIL

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5	.1	.5	.0	.0	.0	.0	.6
1-2	.0	4.6	.9	.0	.0	.0	5.4	.0	2.3	.2	.0	.0	.0	2.5
3-4	.0	2.8	3.8	.0	.0	.0	6.6	.0	2.3	2.2	.0	.0	.0	4.4
5-6	.0	.6	4.0	2.3	.0	.0	6.9	.0	.2	2.1	.8	.0	.0	3.1
7	.0	.6	.2	1.2	.0	.0	2.0	.0	.0	.3	1.0	.0	.0	1.4
8-9	.0	.0	.3	.6	.0	.0	.9	.0	.0	.0	.5	.0	.0	.5
10-11	.0	.2	.0	.0	.0	.0	.2	.0	.0	.7	.5	.0	.0	1.2
12	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	9.2	9.2	4.5	.0	.0	23.0	.1	5.3	5.5	2.8	.0	.0	13.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.6	1.3	.0	.0	.0	.0	2.0	.0	.2	.0	.0	.0	.0	.2	
1-2	.0	2.9	.6	.0	.0	.0	3.6	.0	1.2	.1	.0	.0	.0	1.2	
3-4	.0	1.5	.8	.0	.0	.0	2.3	.0	.5	1.3	.0	.0	.0	1.7	
5-6	.0	.0	.5	.2	.0	.0	.8	.0	.0	1.4	.1	.3	.0	1.7	
7	.0	.0	.6	.2	.0	.0	.8	.0	.0	.5	.1	.2	.0	.8	
8-9	.0	.0	.2	.2	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.1	.0	.0	.1	
13-16	.0	.0	.0	.6	.2	.0	.9	.0	.0	.0	.2	.2	.0	.5	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	5.8	2.7	1.3	.5	.0	10.9	.0	1.8	3.2	.3	1.3	.0	6.8	98.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.3	3.7	.0	.0	.0	.0	6.0	
1-2	.2	15.4	4.8	.0	.0	.0	21.4	
3-4	.0	10.6	16.6	.2	.0	.0	27.4	
5-6	.0	2.1	15.7	5.1	.9	.0	23.3	
7	.0	.7	6.5	4.4	.2	.0	11.8	
8-9	.0	.0	1.2	2.8	.0	.0	3.9	
10-11	.0	.5	.9	.9	.0	.0	2.3	
12	.0	.0	.2	.9	.5	.0	1.6	
13-16	.0	.0	.0	.9	.5	.0	1.4	
17-19	.0	.0	.0	.0	.2	.0	.2	
20-22	.0	.0	.0	.2	.2	.0	.5	
23-25	.0	.0	.0	.0	.2	.0	.2	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.5	33.9	45.9	15.4	2.3	.0	100.0	434

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.1	7.6	8.3	5.3	2.9	1.4	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	188
6-7	.0	.1	5.0	8.1	5.0	3.1	2.3	1.1	.9	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	182
8-9	.0	.0	1.3	4.4	6.4	2.3	2.6	1.4	1.6	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	143
10-11	.0	.1	1.1	.7	1.7	2.7	1.7	.4	.7	.6	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	72
12-13	.0	.0	.4	.3	.4	1.7	.9	1.1	.7	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	41
>13	.0	.0	.0	.0	.1	.1	.3	.3	.3	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	12
INDET	.7	.9	2.3	2.0	1.6	1.0	.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	62
TOTAL	13	61	129	146	127	87	55	32	31	6	11	2	0	0	0	0	0	0	0	0	700
PCT	1.9	8.7	18.4	20.9	18.1	12.4	7.9	4.6	4.4	.9	1.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	100.0

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NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2  
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO). AUSTRAL--ETC(U)  
SEP 77

F/G 4/2

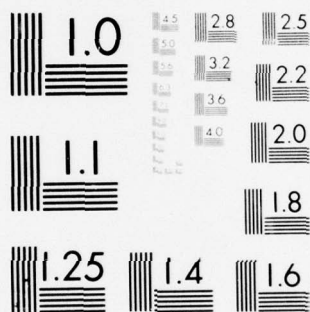
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MICROCOPY RESOLUTION TEST CHART  
NATIONAL BUREAU OF STANDARDS-1963-A



PERIOD: (PRIMARY) 1921-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	ND SIG WEA
N	.0	2.5	2.5	.0	.0	.0	.0	5.1	3.2	1.3	.0	.0	1.3	.0	89.2
NE	.9	.0	.9	.0	.0	.0	.0	1.7	.0	.9	.0	.0	.0	.0	97.4
E	.5	.6	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	98.9
SE	.8	2.4	.5	.0	.0	.0	.0	3.7	1.0	.4	.2	.4	.0	.0	94.3
S	.8	3.8	1.8	.0	.0	.0	.0	6.4	2.5	.4	.6	.0	.0	.0	90.0
SW	2.5	4.3	1.1	.0	.0	.0	.0	7.9	2.6	.5	1.1	.0	.0	.0	88.0
W	2.8	9.6	.6	.0	.0	.0	.0	12.9	1.7	.0	1.2	.0	.6	.0	83.6
NW	3.2	7.3	.0	.0	.0	.0	.0	10.5	1.7	.9	1.3	.0	.0	.0	86.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.4	3.8	.9	.0	.0	.0	.0	6.1	1.6	.4	.6	.1	.1	.0	91.1
TOT OBS:	1388														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG SNOW	ND SIG WEA
0000	.6	4.0	.8	.0	.0	.0	.0	5.6	3.2	.0	.5	.0	.3	.0	90.4
0600	2.0	3.6	1.3	.0	.0	.0	.0	6.9	1.3	.3	.7	.0	.0	.0	91.1
1200	2.0	2.7	1.0	.0	.0	.0	.0	5.7	.5	.5	.7	.2	.2	.0	92.1
1800	1.2	5.0	.3	.0	.0	.0	.0	6.5	1.2	1.2	.3	.0	.0	.0	90.9
TOT PCT	1.5	3.8	.8	.0	.0	.0	.0	6.1	1.5	.3	.6	.1	.1	.0	91.2
TOT OBS:	1425														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	2.4	2.0	.4	.2	.0		5.3	11.9		7.6	6.4	4.7	5.2	3.8	4.3	5.1	4.9
NE	.5	4.1	3.7	.6	.1	.0		9.1	12.0		12.3	14.6	8.7	5.8	4.9	11.2	7.9	12.1
E	.5	5.0	5.4	1.0	.1	.0		12.0	12.3		12.4	14.2	12.4	8.5	10.0	14.0	12.0	14.8
SE	.7	7.9	9.3	1.2	.*	.0		19.2	12.1		16.8	13.3	19.6	18.2	23.5	18.6	21.5	15.1
S	.7	7.4	7.0	1.2	.2	.0		16.5	12.1		16.4	13.3	17.7	15.8	18.9	11.4	18.5	11.0
SW	.9	6.2	5.8	2.0	.3	.1		15.3	13.2		14.4	18.8	13.9	19.8	16.5	14.0	14.0	14.0
W	.6	4.3	4.4	2.2	.4	.*		12.0	14.4		11.5	10.2	11.7	14.9	11.2	17.6	10.8	12.5
NW	.7	3.1	3.4	1.4	.3	.0		9.0	13.9		7.5	8.5	10.2	9.5	9.8	8.1	7.4	11.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.7							1.7	.0		1.1	.8	1.0	2.3	1.4	.8	2.8	4.4
TOT DBS	150	902	914	225	37	2	2230		12.5		458	132	398	173	438	129	320	182
TOT PCT	6.7	40.4	41.0	10.1	1.7	.1		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	1.4	2.7	1.0	.4	.1		5.3	11.9	7.3	4.9	3.9	5.0	
NE	1.8	5.2	1.9	.2	.1		9.1	12.0	12.8	7.8	6.3	9.4	
E	2.1	6.9	2.8	.2	.0		12.0	12.3	12.8	11.3	10.9	13.0	
SE	3.1	11.8	4.0	.3	.0		19.2	12.1	16.0	19.2	22.4	19.2	
S	3.6	9.1	3.2	.6	.0		16.5	12.1	15.7	17.1	17.2	15.8	
SW	3.6	7.2	3.3	.4	.2		15.3	13.2	15.4	15.7	15.9	14.0	
W	2.5	5.1	3.3	1.0	.1		12.0	14.4	11.2	12.7	12.7	11.5	
NW	2.0	3.9	2.4	.6	.1		9.0	13.9	7.7	10.0	9.4	8.7	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	1.7						1.7	.0	1.0	1.4	1.2	3.4	
TOT DBS	489	1156	484	87	14	2230		12.5	590	571	567	502	
TOT PCT	21.9	51.8	21.7	3.9	.6		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1921-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)							PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+	MEAN		
00003	1.0	5.1	42.7	40.0	10.3	.8	.0	12.2	100.0	590
06009	1.4	6.0	35.6	44.3	11.0	1.6	.2	13.0	100.0	571
12015	1.2	4.9	44.1	38.6	9.2	1.9	.0	12.1	100.0	567
18021	3.4	4.0	39.2	41.0	9.8	2.4	.2	12.7	100.0	502
TOT	38	112	902	914	225	37	2	12.5		2230
PCT	1.7	5.0	40.4	41.0	10.1	1.7	.1	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	1.8	.8	2.4	.0		4.6
NE	4.8	1.1	1.6	.6		2.5
E	6.4	2.6	3.0	1.2		3.1
SE	8.3	5.2	5.3	2.4		3.5
S	3.2	4.8	9.4	2.0		4.8
SW	2.7	3.4	6.3	1.9		4.8
W	2.2	3.0	4.1	1.4		4.5
NW	1.1	1.7	2.6	.9		4.6
CALM	.0	.0	.0	.0		1.7
TOT OBS	294	213	327	105	939	4.0
TOT PCT	31.3	22.7	34.8	11.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.1	.3	.6	.5	.2	.1	.0	.0	4.0	
.0	.0	.0	.2	.6	.1	.1	.0	.1	.1	7.0	
.0	.0	.0	.1	.9	.7	.9	.1	.1	.1	10.4	
.0	.0	.2	.6	2.0	2.1	.4	.1	.1	.0	15.6	
.0	.0	.0	.7	2.9	3.0	1.8	.0	.1	.1	10.9	
.0	.0	.0	1.0	1.9	2.4	1.6	.1	.1	.0	7.2	
.0	.0	.0	.9	1.4	1.1	.3	.0	.0	.1	6.9	
.0	.0	.0	.3	.9	.9	.3	.0	.0	.2	3.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	
.0	.0	.3	.37	105	101	52	4	5	6	626	939
.0	.0	.3	3.9	11.2	10.8	5.5	.4	.5	.6	66.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>4000	1.7	1.8	1.8	1.8	1.8	1.8	1.8	1.8
>3500	7.0	7.2	7.2	7.2	7.2	7.2	7.2	7.2
>2000	16.1	17.7	18.0	18.0	18.0	18.0	18.0	18.0
>1000	26.3	28.8	29.0	29.0	29.0	29.0	29.0	29.0
>600	30.2	33.0	33.2	33.3	33.3	33.3	33.3	33.3
>300	30.4	33.3	33.5	33.6	33.6	33.6	33.6	33.6
>150	30.4	33.3	33.5	33.6	33.6	33.6	33.6	33.6
>0	30.4	33.3	33.5	33.6	33.6	33.6	33.6	33.6
TOTAL	291	319	321	322	322	322	322	322

TOTAL NUMBER OF OBS: 938

PCT FREQ NH <5/8: 66.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	TOTAL
17.0	10.4	12.2	14.5	10.7	8.6	10.3	9.1	7.1	1035

PERIOD: (PRIMARY) 1921-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	*	.1	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.0	*	.1	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
2<5	PCP	.0	.0	.0	*	.1	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.1	.1	*	.1	.3	.0	.0	.0	.0	.5	
	TOT %	.0	.1	.1	*	.1	.4	.0	.0	.0	.0	.6	
5<10	PCP	.2	.1	.1	.3	.4	.9	1.1	.8	.0	.0	3.9	
	NO PCP	1.3	2.4	2.1	3.9	3.5	4.4	3.3	1.9	.0	.2	23.0	
	TOT %	1.5	2.6	2.2	4.1	3.9	5.3	4.4	2.6	.0	.2	26.9	
10+	PCP	.1	.0	.0	.4	.7	.3	.4	.1	.0	.0	1.9	
	NO PCP	4.1	5.7	9.5	14.7	12.5	10.0	7.4	5.5	.0	.7	70.2	
	TOT %	4.2	5.7	9.5	15.1	13.1	10.3	7.8	5.7	.0	.7	72.1	
TOT OBS													1387
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	*	*	.1	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.0	.0	*	.1	.0	.0	.1	.1
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.1	.1
	22+	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.1	.0	.0	.0	.0	.2	.1	.0	.0	.3	.3
2<5	0-3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.3	.3
	11-21	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.1	.0	.0	*	*	.1	.0	.0	.0	.0	.2	.2
	TOT %	.1	.1	*	*	.1	.3	.0	.0	.0	.0	.5	.5
5<10	0-3	*	.1	.2	.3	.2	.3	.3	.2	.0	.4	1.9	1.9
	4-10	.9	1.7	1.8	2.3	1.9	2.4	1.6	1.0	.0	.0	13.6	13.6
	11-21	.6	1.5	1.0	2.4	2.2	2.3	1.6	1.2	.0	.0	12.8	12.8
	22+	.2	.2	.4	.3	.4	.9	1.0	.7	.0	.0	4.2	4.2
	TOT %	1.7	3.6	3.4	5.3	4.6	5.9	4.5	3.1	.0	.4	32.5	32.5
10+	0-3	.3	.2	.2	.2	.3	.7	.3	.6	.0	1.1	4.1	4.1
	4-10	1.7	2.7	3.1	5.8	5.4	3.7	2.6	2.1	.0	.0	27.1	27.1
	11-21	1.4	2.2	4.4	7.4	4.8	3.9	2.9	1.9	.0	.0	29.0	29.0
	22+	.2	.2	.7	.9	.9	1.5	1.3	.7	.0	.0	6.4	6.4
	TOT %	3.6	5.4	8.4	14.4	11.5	9.7	7.1	5.3	.0	1.1	66.5	66.5
TOT OBS													1870
TOT PCT													100.0

NAY

PERIOD: (PRIMARY) 1921-1972  
(OVER-ALL) 1857-1972

AREA 0018 PERTH NW  
29.95 112.8F

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL DBS
00603	.0	.0	.4	4.8	14.3	12.7	5.6	.8	.4	.4	39.3	60.7	252
06609	.0	.0	.0	5.0	8.9	12.0	5.8	.0	.0	.8	32.6	67.4	258
12615	.0	.0	.4	3.9	9.9	9.1	4.7	.4	.4	.4	29.3	70.7	232
18621	.0	.0	.4	2.8	9.6	7.6	4.8	1.2	1.2	.8	28.3	71.7	251
TOT	0	0	3	41	106	103	52	6	5	6	322	671	993
PCT	.0	.0	.3	4.1	10.7	10.4	5.2	.6	.5	.6	32.4	67.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL DBS
00603	.2	.4	.0	.6	31.8	67.1	510
06609	.0	.0	.2	.0	32.5	67.3	462
12615	.0	.0	.6	1.0	37.3	61.1	504
18621	.0	.0	.2	.5	28.8	70.5	438
TOT	1	2	5	10	626	1270	1914
PCT	.1	.1	.3	.5	32.7	66.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL DBS
00603	.0	.4	5.3	35.4	59.3	243
06609	.0	.0	5.2	28.5	66.3	249
12615	.0	.4	4.9	25.6	69.5	223
18621	.0	.4	3.7	25.5	70.8	243
TOT	0	3	46	275	636	958
PCT	.0	.3	4.8	28.8	66.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL DBS	PCT FREQ
75/79	.0	.0	.1	.7	.4	.3	.6	.1	31	2.3
70/74	.0	.0	.7	2.4	6.3	6.1	4.4	2.5	305	22.6
65/69	.0	.0	.5	7.3	14.3	13.5	9.7	4.0	664	49.6
60/64	.0	.0	.4	2.6	9.0	6.6	4.3	1.2	322	24.0
55/59	.0	.0	.0	.1	.2	.6	.3	.1	18	1.3
TOTAL	0	0	23	184	406	363	258	106	1340	100.0
PCT	.0	.0	1.7	13.7	30.3	27.1	19.3	7.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.4	.4	.5	.3	.1	.2	.2	*	.0	.1
2.4	3.1	2.7	3.9	2.6	2.2	2.0	3.7	.0	.2
1.7	3.4	6.0	9.2	9.5	8.1	7.0	3.9	.0	.7
.7	1.2	2.6	5.1	5.9	5.4	2.3	.6	.0	.2
.0	.0	.4	.1	.3	.3	.2	.0	.0	.0
5.2	8.0	12.3	18.7	18.3	16.3	11.6	8.2	.0	1.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL DBS
00603	85	77	73	67	61	58	56	67.0	571
06609	78	77	75	68	62	60	59	68.4	534
12615	79	75	73	67	61	58	54	66.8	571
18621	76	74	72	66	60	57	56	65.0	504
TOT	85	76	73	67	61	58	54	67.1	2180

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL DBS
00603	.0	14.6	32.2	22.2	21.7	9.2	72	369
06609	.0	23.3	27.8	28.7	15.5	4.7	59	317
12615	.0	13.4	30.6	26.5	20.1	9.5	72	359
18621	.0	10.4	29.4	31.5	20.5	8.3	73	327
TOT	0	210	413	371	268	110	72	1372

PERIOD: (PRIMARY) 1921-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT FOG	W FOG	WD FOG
11/13	.0	.0	.0	.0	.1	.0	.0	1	.0	.1
9/10	.0	.0	.0	.0	.1	.2	.0	3	.0	.3
7/8	.0	.0	.0	.0	.2	.1	.3	6	.0	.6
6	.0	.0	.0	.1	.3	.2	.1	7	.0	.6
5	.0	.0	.0	.2	.6	.2	.0	10	.0	.9
4	.0	.0	.0	.3	.3	.5	.0	11	.0	1.0
3	.0	.0	.2	.1	.6	1.0	.1	22	.0	2.0
2	.0	.0	.0	.3	1.0	.6	.1	22	.0	2.0
1	.0	.0	.1	.6	2.7	1.0	.2	50	.0	4.6
0	.0	.0	.5	2.6	4.0	1.0	.0	87	.0	8.0
-1	.0	.0	.5	3.5	3.3	.6	.0	85	.3	7.6
-2	.0	.1	1.8	5.8	3.3	.2	.0	121	.0	11.2
-3	.0	.1	2.6	6.5	2.6	.2	.0	129	.3	11.6
-4	.0	.2	2.4	5.5	.9	.1	.0	98	.1	9.0
-5	.0	.4	4.7	8.0	.8	.0	.0	151	.0	14.0
-6	.0	.3	2.7	3.9	1.1	.0	.0	86	.1	7.9
-7/-8	.1	.8	4.5	4.9	.8	.1	.0	122	.0	11.3
-9/-10	.0	.6	2.9	1.1	.1	.0	.0	51	.0	4.7
-11/-13	.0	.6	.8	.2	.0	.0	.0	18	.0	1.7
-14/-16	.0	.1	.1	.0	.0	.0	.0	2	.0	.2
TOTAL	1	35	256	471	247	64	8	1082	.7	1074
PCT	.1	3.2	23.7	43.5	22.8	5.9	.7	100.0	.7	99.3

PERIOD: (OVER-ALL) 1963-1977

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6	.2	.2	.0	.0	.0	.0	.4
1-2	.2	1.2	.5	.0	.0	.0	1.8	.3	2.8	1.1	.0	.0	.0	4.1
3-4	.0	.5	.5	.0	.0	.0	1.0	.0	1.3	.5	.0	.0	.0	1.8
5-6	.0	.0	.6	.0	.0	.0	.6	.0	.2	.9	.0	.0	.0	1.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.2	.0	.0	.0	.2	.0	.0	.3	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.2	1.8	.0	.0	.0	4.2	.5	4.5	3.0	.0	.0	.0	8.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.0	.0	.0	.0	.8	.0	.4	.0	.0	.0	.0	.4
1-2	.2	3.3	.6	.0	.0	.0	4.0	.1	4.1	.6	.0	.0	.0	4.8
3-4	.0	1.4	2.5	.0	.0	.0	3.8	.2	2.8	4.7	.1	.0	.0	7.8
5-6	.0	.4	1.7	.0	.0	.0	2.0	.0	.3	4.1	.7	.0	.0	5.0
7	.0	.2	.8	1.1	.0	.0	2.1	.0	.0	1.5	.3	.0	.0	1.8
8-9	.0	.0	.2	.2	.0	.0	.3	.0	.0	.3	.3	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	5.9	5.6	1.3	.0	.0	13.1	.3	7.6	11.1	1.6	.0	.0	20.6



PERIOD: (OVER-ALL) 1963-1972

MAY

TABLE 18 (CONT)

AREA 0018 PERTH NW  
29.95 112.8E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.2	.0	.0	.0	.0	1.7	.7	.4	.0	.0	.0	.0	1.0
1-2	.0	4.7	.6	.0	.0	.0	5.3	.0	3.0	.4	.0	.0	.0	3.4
3-4	.0	1.7	3.4	.3	.0	.0	5.4	.2	2.0	2.0	.3	.0	.0	4.4
5-6	.0	.2	2.2	.8	.0	.0	3.2	.0	1.0	2.4	.0	.0	.0	3.4
7	.0	.0	2.1	.4	.0	.0	2.5	.0	.1	.5	.5	.0	.0	1.1
8-9	.0	.0	.2	.3	.0	.0	.5	.0	.0	.8	.7	.0	.0	1.5
10-11	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.2	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	7.8	8.6	1.9	.0	.0	18.9	.9	6.4	6.1	1.7	.2	.0	15.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.3	.0	.0	.0	.0	1.3	.6	.1	.0	.0	.0	.0	.7	
1-2	.2	2.6	.4	.0	.0	.0	3.2	.3	1.8	.3	.0	.0	.0	2.4	
3-4	.0	1.1	1.5	.2	.0	.0	2.8	.2	.2	1.5	.0	.0	.0	1.9	
5-6	.0	.0	2.2	.0	.0	.0	2.2	.0	.2	1.4	.2	.0	.0	1.8	
7	.0	.2	.6	.2	.0	.0	.9	.0	.0	.0	.2	.0	.0	.2	
8-9	.0	.0	.0	.4	.0	.0	.4	.0	.0	.2	.2	.0	.0	.4	
10-11	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	5.1	4.8	.8	.0	.0	10.8	1.1	2.4	3.4	.9	.0	.0	7.7	98.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.8	4.6	.0	.0	.0	.0	9.5	
1-2	1.2	23.1	4.4	.0	.0	.0	28.8	
3-4	.8	10.9	16.3	.8	.0	.0	28.8	
5-6	.0	2.2	15.3	1.6	.0	.0	19.1	
7	.0	.4	5.6	2.6	.0	.0	8.7	
8-9	.0	.0	2.0	2.0	.0	.0	4.0	
10-11	.0	.0	.0	.6	.2	.0	.8	
12	.0	.0	.0	.2	.0	.0	.2	
13-16	.0	.0	.0	.2	.0	.0	.2	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.8	41.2	43.7	8.0	.2	.0	100.0	497

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	7.7	7.8	3.8	1.7	.8	.1	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	173	4
6-7	.1	.5	4.6	9.8	3.7	2.6	1.4	.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	181	6
8-9	.0	.1	1.7	5.0	5.9	3.9	3.1	.8	1.4	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	173	8
10-11	.0	.0	1.2	1.3	4.2	2.9	2.6	1.0	1.4	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	114	8
12-13	.0	.0	.3	1.7	1.3	.8	1.6	.5	.8	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	47	9
>13	.0	.0	.0	.0	.1	.3	.0	.7	1.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	18	12
INDEX	.4	.5	1.7	2.7	1.2	1.0	.1	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	63	5
TOTAL	6	68	192	178	138	94	69	32	41	4	3	0	1	0	0	0	0	0	0	765	6
PCT	.8	8.9	17.2	23.2	18.0	12.3	9.0	4.2	5.4	.5	.4	.0	.1	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1860-1969

JUNE

AREA 0018 PERTH NW  
29.9S 112.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	5.1	3.5	3.9	.0	.0	.0	.0	11.8	2.1	1.9	.0	.0	.0	.0	84.1
NE	2.5	.8	4.3	.0	.0	.0	.0	6.9	.0	1.3	.7	.0	.0	.0	91.1
E	2.5	2.7	.8	.0	.0	.0	.0	6.1	.8	1.7	.0	.0	.0	.0	92.2
SE	.0	4.2	3.0	.0	.0	.0	.0	7.2	2.6	.7	.0	.0	.7	.0	88.7
S	3.1	8.2	2.2	.0	.0	.0	.0	13.5	1.6	.5	1.5	.0	.0	.0	82.9
SW	2.3	10.8	.5	.0	.0	.0	.0	13.5	7.1	.1	.2	.0	.1	.0	78.9
W	6.7	10.0	.4	.0	.0	.0	.4	17.4	7.0	4.0	.2	.0	.7	.0	72.4
NW	4.2	13.7	1.4	.0	.0	.0	.0	19.3	7.1	1.8	.0	.0	.0	.0	72.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
CALM	7.1	.0	7.1	.0	.0	.0	.0	7.1	.0	.0	.0	.0	.0	.0	92.9
TOT PCT	3.6	7.2	1.9	.0	.0	.0	.1	12.6	4.1	1.7	.3	.0	.2	.0	81.6
TOT OBS:	1327														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGD WD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00003	2.2	6.8	2.2	.0	.0	.0	.0	11.2	3.8	.5	.0	.0	.5	.0	83.8
06009	4.3	7.4	2.8	.0	.0	.0	.4	14.2	3.2	.0	.4	.0	.0	.0	82.3
12015	3.9	6.0	.3	.0	.0	.0	.0	10.1	5.2	2.8	.8	.0	.3	.0	81.3
18021	4.4	8.5	2.5	.0	.0	.0	.0	15.0	3.8	3.1	.0	.0	.0	.0	79.3
TOT PCT	3.6	7.1	1.8	.0	.0	.0	.1	12.4	4.1	1.7	.3	.0	.2	.0	81.7
TOT OBS:	1352														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	00					03	06	09	12	15	18	21	
N	.4	3.8	4.3	1.5	.2	.0		10.2	13.8		10.3	12.0	10.7	10.8	9.0	10.5	9.4	10.6
NE	.5	5.7	4.4	.7	.0	.0		11.3	11.5		13.1	17.2	13.2	8.2	7.7	10.5	10.6	11.8
E	.2	4.8	3.9	.2	.0	.0		9.1	10.5		10.7	8.3	7.5	6.0	8.0	13.3	7.6	14.5
SE	.6	4.6	5.0	.4	.0	.0		10.6	11.4		11.1	10.9	11.5	10.2	12.4	6.9	10.0	7.0
S	.4	4.8	3.9	1.4	.2	.0		10.6	13.0		9.3	5.8	11.0	12.0	12.8	7.7	12.9	9.1
SW	.5	5.4	6.2	3.9	1.7	.1		17.7	17.5		18.5	13.4	18.4	20.2	18.3	19.0	15.1	18.2
W	.4	4.7	7.2	4.1	1.9	.4		18.6	18.8		17.5	19.2	16.8	19.0	20.4	21.2	19.4	15.6
NW	.2	2.8	4.4	2.5	.6	.0		10.5	17.2		8.9	13.1	10.4	11.7	10.0	10.3	11.8	10.8
VAR	*	.0	.0	.0	.0	.0		.0	2.0		.0	.0	.0	.0	.0	.0	.3	.0
CALM	1.2							1.2	.1		.7	.0	.6	1.9	1.4	.8	2.4	2.4
TOT OBS	95	767	823	307	97	11	2100		14.7		431	160	337	162	424	124	297	165
TOT PCT	4.5	36.5	39.2	14.6	4.6	.5		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-6	7-16	17-27	28-40	41+						00	06	12	18	21		
N	1.8	5.0	2.9	.6	.0			10.2	13.8		10.8	10.7	9.3	9.8			
NE	2.6	6.5	1.9	.3	.0			11.3	11.5		14.2	11.6	8.3	11.0			
E	2.0	6.0	1.1	.0	.0			9.1	10.5		10.0	7.0	9.2	10.1			
SE	2.5	6.1	1.9	.2	.0			10.6	11.4		11.0	11.1	11.2	8.9			
S	2.0	5.9	1.9	.8	.0			10.6	13.0		8.3	11.3	11.6	11.5			
SW	2.7	6.9	4.8	2.5	.8			17.7	17.5		17.1	19.0	18.5	16.2			
W	2.1	6.7	5.9	3.2	.7			18.6	18.8		17.9	17.5	20.6	18.4			
NW	.8	4.7	3.5	1.4	.2			10.5	17.2		10.1	10.8	10.0	11.4			
VAR	.0	.0	.0	.0	.0			.0	2.0		.0	.0	.0	.0			
CALM	1.2							1.2	.1		.3	1.0	1.3	2.4			
TOT OBS	369	1002	503	190	36	2100			14.7		591	499	548	462			
TOT PCT	17.6	47.7	24.0	9.0	1.7			100.0			100.0	100.0	100.0	100.0			

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1860-1969

JUNE

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
00603	.5	3.9	35.7	41.8	12.0	5.4	.7	14.8	100.0	591
06609	1.0	2.4	37.1	38.5	15.0	5.6	.4	15.1	100.0	499
12615	1.3	3.1	39.4	33.9	18.1	3.8	.4	14.4	100.0	548
18621	2.4	3.7	33.5	42.9	13.4	3.5	.6	14.3	100.0	462
TOT	26	69	767	823	307	97	11	14.7		2100
PCT	1.2	3.3	36.5	39.2	14.6	4.6	.5	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.7	1.8	3.1	2.1		4.3
NE	4.1	2.3	2.9	1.7		3.9
E	3.4	1.9	1.5	1.4		3.5
SE	2.1	3.6	3.5	1.5		4.5
S	2.3	2.9	5.0	1.5		4.7
SW	2.7	3.9	7.5	1.8		4.8
W	2.7	6.5	7.8	1.9		4.7
NW	2.8	2.9	4.2	1.7		4.5
VAR	.1	.0	.0	.0		.0
CALM	1.0	.1	.3	.1		2.4
TOT OBS	225	233	322	127	902	4.4
TOT PCT	24.9	25.8	35.7	13.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.1	.0	.4	.9	.9	.6	.1	.1	.1	7.3	
.0	.0	.0	.3	1.1	1.1	.7	.2	.0	.1	7.5	
.0	.0	.0	.4	.8	.8	.1	.2	.0	.1	5.7	
.0	.0	.0	.4	1.4	1.0	.3	.3	.0	.1	7.2	
.3	.0	.0	.9	2.1	1.6	.3	.1	.0	.0	6.3	
.1	.0	.1	1.2	3.2	1.7	1.0	.0	.0	.0	8.5	
.1	.0	.1	1.4	3.5	2.2	.7	.2	.0	.0	10.6	
.0	.0	.0	.7	1.8	1.4	.6	.0	.1	.0	6.9	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
.0	.0	.0	.1	.0	.1	.1	.0	.0	.0	1.2	
.4	1	2	54	134	97	40	11	2	4	553	902
.4	.1	.2	6.0	14.9	10.8	4.4	1.2	.2	.4	61.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.8	.8	.8	.8	.8	.8	.8	.8
>4000	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
>3500	6.1	6.2	6.3	6.3	6.3	6.3	6.3	6.3
>3000	15.3	16.5	17.0	17.0	17.0	17.0	17.0	17.0
>2500	27.1	31.0	31.7	31.8	31.8	31.8	31.8	31.8
>2000	31.9	36.2	37.6	37.7	37.7	37.7	37.7	37.7
>1500	32.1	36.5	37.8	37.9	37.9	37.9	37.9	37.9
>1000	32.1	36.6	37.9	38.0	38.0	38.0	38.0	38.0
>500	32.2	36.9	38.3	38.4	38.4	38.4	38.4	38.4
TOTAL	295	338	351	352	352	352	352	352

TOTAL NUMBER OF OBS: 916

PCT FREQ NH <5/8: 61.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
7.8	11.6	13.7	14.1	12.8	9.8	10.6	8.6	10.7	.3	984

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1860-1969

JUNE

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	NO PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.2	
1<2	PCP	.1	.1	.0	.0	.1	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.1	.0	.2	.1	.0	.0	.0	.3	
	TOT %	.1	.1	.0	.1	.1	.2	.1	.0	.0	.0	.5	
2<5	PCP	.2	.1	.0	.0	.3	*	.0	.1	.0	.1	.8	
	NO PCP	.1	.0	.0	.1	.1	.4	.4	.4	.0	.0	1.5	
	TOT %	.3	.1	.0	.1	.4	.4	.4	.5	.0	.1	2.3	
5<10	PCP	.8	.2	.3	.5	.6	1.7	2.5	1.7	.0	.0	8.2	
	NO PCP	1.5	2.5	1.9	1.8	1.8	4.2	4.7	.8	.0	.0	19.1	
	TOT %	2.3	2.7	2.1	2.3	2.4	5.9	7.2	2.5	.0	.0	27.4	
10+	PCP	.2	.4	.3	.3	.5	.5	.9	.2	.0	.0	3.3	
	NO PCP	7.8	8.1	6.5	7.5	7.0	9.6	11.5	7.2	.1	1.0	66.3	
	TOT %	8.0	8.4	6.8	7.8	7.5	10.1	12.5	7.5	.1	1.0	69.6	
TOT OBS													1327
TOT PCT													
		10.7	11.4	8.9	10.2	10.3	16.6	20.2	10.4	.1	1.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	.1
	11-21	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.0	.0	.0	*	*	.0	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.1	.1
	22+	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.1	.0	.0	.0	.0	.1	.1	.0	.0	.3	.3
1<2	0-3	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	.1
	4-10	.0	.1	.0	.1	.1	.1	*	.1	.0	.0	.5	.5
	11-21	.1	.0	.0	.1	.1	.0	*	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	.2
	TOT %	.1	.1	.0	.1	.2	.2	.2	.1	.0	.0	.9	.9
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.0	.0	.1	.2	.2	.1	.0	.0	.6	.6
	11-21	.1	.1	.0	.0	.1	.1	.1	.2	.0	.0	.8	.8
	22+	.1	.0	.0	.1	.1	.1	.1	*	.0	.0	.5	.5
	TOT %	.2	.1	.0	.1	.3	.4	.4	.4	.0	.1	1.9	1.9
5<10	0-3	.1	.0	*	.1	.2	.2	.1	.1	.0	.1	.8	.8
	4-10	1.3	2.2	1.4	1.1	1.4	1.5	1.3	.8	.0	.0	10.9	10.9
	11-21	1.1	1.5	2.0	1.7	1.1	2.2	2.7	1.1	.0	.0	13.5	13.5
	22+	.7	.1	.1	.1	.5	2.5	3.3	1.2	.0	.0	8.4	8.4
	TOT %	3.2	3.8	3.6	3.0	3.2	6.4	7.4	3.2	.0	.1	33.7	33.7
10+	0-3	.3	.6	.3	.5	.2	.2	.3	.2	.1	.8	3.4	3.4
	4-10	2.6	4.0	3.2	2.8	2.9	2.7	2.6	1.9	.0	.0	22.8	22.8
	11-21	3.1	3.2	2.5	3.5	2.5	4.2	5.0	3.1	.0	.0	27.0	27.0
	22+	.8	.4	.1	.3	1.1	2.4	2.8	2.0	.0	.0	9.9	9.9
	TOT %	6.8	8.2	6.0	7.1	6.8	9.5	10.7	7.1	.1	.8	63.1	63.1
TOT OBS													1770
TOT PCT													100.0
		10.3	12.2	9.6	10.3	10.4	16.5	18.8	10.9	.1	1.0	100.0	

## JUNE

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1860-1969AREA 0018 PERTH NW  
29.95 112.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.4	.0	.0	5.7	19.9	13.4	4.1	1.2	.8	.8	46.3	53.7	246
06009	.0	.4	.9	7.7	13.2	9.4	5.1	1.7	.0	.9	39.3	60.7	234
12015	.4	.0	.0	5.3	12.3	8.3	3.1	1.3	.0	.0	30.7	69.3	228
18021	.9	.0	.0	4.3	11.5	10.2	4.7	.4	.0	.4	32.3	67.7	235
TOT	4	1	2	54	135	98	40	11	2	5	352	591	943
PCT	.4	.1	.2	5.7	14.3	10.4	4.2	1.2	.2	.5	37.3	62.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.4	1.0	2.0	34.8	61.9	509
06009	.3	.0	.8	1.5	33.0	64.5	397
12015	.2	.4	1.4	3.0	36.6	58.3	452
18021	.0	.2	.7	.7	29.5	69.3	407
TOT	2	5	16	34	608	1140	1805
PCT	.1	.3	.9	1.9	33.7	63.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH > 4/8), BY HOUR

HOUR (GMT)	<150 <5000	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.4	.4	7.0	40.1	52.9	242
06009	.0	1.3	9.8	31.3	58.9	224
12015	.5	.5	6.3	25.3	68.3	221
18021	.9	.9	6.6	26.6	66.8	229
TOT	4	7	68	284	564	916
PCT	.4	.8	7.4	31.0	61.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-24	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.0	.1	.1	.0	.0	3	.2
70/74	.0	.0	.4	1.3	2.3	1.8	1.5	.6	106	7.9
65/69	.0	.1	.4	4.6	12.3	13.3	7.2	2.9	547	40.9
60/64	.0	.1	.2	3.7	14.6	13.0	8.1	3.1	572	42.7
55/59	.0	.0	.0	.3	1.6	2.9	2.5	.7	108	8.1
50/54	.0	.0	.9	.1	.0	.0	.1	.1	3	.2
TOTAL	0	2	14	135	414	417	258	99	1339	100.0
PCT	.0	.1	1.0	10.1	30.9	31.1	19.3	7.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	C&LM
.1	.0	.0	*	.1	.1	.0	.0	.0	.0
2.9	1.7	.6	.3	.5	.3	.4	1.3	.0	.0
5.9	5.2	4.1	3.9	3.1	3.6	7.9	6.5	.0	.7
1.5	4.0	4.3	4.7	5.4	9.6	9.4	3.3	.1	.4
.3	.7	1.3	.9	1.7	2.1	.7	.3	.0	.0
.0	.1	.1	*	.1	.0	.0	.0	.0	.0
10.7	11.8	10.3	9.8	10.8	15.7	18.4	11.4	.1	1.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	79	74	70	64	57	54	53	64.3	570
06009	77	73	72	65	59	56	53	65.2	493
12015	83	74	70	64	59	55	54	64.2	538
18021	72	71	69	63	58	54	51	63.5	470
TOT	83	73	70	64	58	55	51	64.3	2071

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	10.2	29.9	32.1	20.6	7.2	73	374
06009	.0	16.8	33.7	26.2	17.2	6.1	70	309
12015	.0	9.8	29.2	32.0	19.9	9.0	73	366
18021	.0	8.4	31.3	33.8	20.0	6.6	73	320
TOT	0	153	423	426	267	100	72	1369



PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1860-1969

JUNE

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.2	.0	.0	2	.0	.2
7/8	.0	.0	.0	.0	.0	.0	.0	.3	3	.0	.3
6	.0	.0	.0	.1	.0	.0	.1	.0	2	.0	.2
5	.0	.0	.0	.1	.1	.1	.0	.2	5	.0	.5
4	.0	.0	.1	.1	.0	.7	.5	.0	15	.0	1.4
3	.0	.0	.0	.0	.4	.9	.3	.0	17	.0	1.6
2	.0	.0	.0	.2	.7	1.3	.1	.0	25	.0	2.3
1	.0	.0	.0	.6	1.5	1.6	.1	.0	40	.0	3.7
0	.0	.0	.3	.7	3.1	1.8	.3	.0	68	.1	6.2
-1	.0	.0	.6	1.4	3.2	1.8	.1	.0	78	.0	7.2
-2	.0	.0	.4	3.6	5.5	1.4	.0	.0	98	.1	9.0
-3	.0	.0	.4	3.6	5.5	1.4	.0	.0	117	.0	10.8
-4	.0	.1	1.2	5.7	4.3	.3	.0	.0	126	.0	11.6
-5	.0	.1	1.9	6.7	4.0	.3	.0	.0	140	.0	12.9
-6	.0	.1	2.3	4.0	2.4	.1	.1	.0	97	.2	8.8
-7/-8	.0	.2	3.1	6.7	2.0	.2	.0	.0	133	.0	12.3
-9/-10	.0	.4	2.6	2.7	1.0	.0	.0	.0	72	.0	6.7
-11/-13	.0	.4	1.0	1.8	.1	.0	.0	.0	35	.0	3.2
-14/-16	.0	.1	.3	.0	.1	.0	.0	.0	5	.0	.5
-17/-19	.1	.3	.0	.0	.0	.0	.0	.0	4	.0	.4
TOTAL	1	17	154	404	352	133	16	5	1082	.4	1078
PCT	.1	1.6	14.2	97.3	32.5	12.3	1.5	.5	100.0	.4	99.6

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.2
1-2	.2	2.9	1.0	.0	.0	.0	4.0	.3	2.9	.9	.0	.0	.0	4.1
3-4	.0	.5	2.8	.0	.0	.0	3.3	.0	1.0	2.3	.0	.0	.0	3.3
5-6	.0	.0	1.9	.8	.0	.0	2.7	.0	.0	1.2	.2	.0	.0	1.4
7	.0	.0	.4	.6	.0	.0	1.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.2	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.7	4.1	2.0	.2	.0	12.0	.3	4.1	4.6	.4	.0	.0	9.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.4	.0	.2	.0	.0	.0	.0	.2
1-2	.0	2.2	.8	.0	.0	.0	3.0	.2	.8	.1	.0	.0	.0	1.1
3-4	.0	1.0	2.9	.0	.0	.0	4.0	.2	.7	2.0	.2	.0	.0	3.1
5-6	.0	.2	.8	.0	.0	.0	1.0	.0	.0	2.0	.0	.0	.0	2.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	3.7	4.6	.0	.0	.0	8.5	.4	1.7	5.3	.7	.0	.0	8.2

PERIOD: (OVER-ALL) 1943-1969

JUNE  
TABLE 18 (CONT)

AREA 0018 PERTH NW  
29.9S 112.8E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.4	.0	.0	.0	.0	.4	.0	.3	.0	.0	.0	.0	.3	
1-2	.4	1.8	.4	.0	.0	.0	2.6	.3	.8	.4	.0	.0	.0	1.5	
3-4	.0	.7	2.5	.2	.0	.0	3.3	.0	.8	2.7	.2	.0	.0	3.8	
5-6	.0	.0	.7	.2	.0	.0	.9	.0	.4	1.3	.2	.2	.0	2.1	
7	.0	.0	.3	.7	.0	.0	1.0	.0	.0	1.3	.9	.0	.0	2.2	
8-9	.0	.0	.2	.4	.0	.0	.6	.0	.0	.4	.9	.4	.0	1.8	
10-11	.0	.0	.0	.2	.3	.0	.5	.0	.0	.1	.3	.4	.0	.7	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.4	.1	.0	.5	
17-19	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.2	.0	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	2.8	4.1	2.1	.5	.0	10.0	.3	2.3	6.2	3.0	1.3	.0	13.1	

HGT	W							NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.2	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
1-2	.0	1.4	1.0	.0	.0	.0	2.4	.0	1.1	.8	.0	.0	.0	1.9	
3-4	.0	1.8	2.3	.9	.0	.0	5.0	.0	.9	1.5	1.1	.0	.0	3.5	
5-6	.0	.2	4.5	.6	.2	.0	5.5	.0	.0	3.2	1.2	.0	.0	4.4	
7	.0	.0	2.6	1.4	.2	.0	4.1	.0	.0	.7	1.5	.1	.0	2.2	
8-9	.0	.0	.5	1.1	.2	.0	1.9	.0	.0	.5	1.1	.2	.0	1.9	
10-11	.0	.0	.2	1.0	.0	.0	1.3	.0	.0	.0	.1	.1	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
13-16	.0	.0	.0	.2	.6	.0	.8	.0	.0	.2	.1	.0	.0	.3	
17-19	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.3	.2	.0	.5	
20-22	.0	.0	.0	.0	.4	.0	.4	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	3.4	11.0	5.3	1.8	.0	21.8	.0	2.0	6.9	5.3	.5	.0	14.7	97.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.6	1.5	.0	.0	.0	.0	4.1	
1-2	1.3	14.0	5.5	.0	.0	.0	20.7	
3-4	.2	7.4	19.0	2.6	.0	.0	29.3	
5-6	.0	.9	15.5	3.3	.4	.0	20.1	
7	.0	.0	6.3	5.0	.2	.0	11.6	
8-9	.0	.0	2.2	3.5	.9	.0	6.6	
10-11	.0	.0	.2	1.7	1.1	.0	3.1	
12	.0	.0	.0	.4	.0	.0	.4	
13-16	.0	.0	.2	1.3	.7	.0	2.2	
17-19	.0	.0	.0	.9	.2	.0	1.1	
20-22	.0	.0	.0	.0	.9	.0	.9	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.1	23.8	48.9	18.8	4.4	.0	100.0	458

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<5	1.1	5.1	5.8	3.0	1.8	.1	.6	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	125	4
6-7	.0	.1	3.1	4.7	5.9	2.5	1.1	.7	1.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	141	7
8-9	.0	.1	.6	3.0	4.2	3.8	2.8	2.0	2.1	1.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	141	9
10-11	.0	.0	.6	.8	2.0	2.7	3.1	2.5	4.5	1.0	.4	.0	.0	.1	.0	.0	.0	.0	.0	129	11
12-13	.0	.0	.4	1.3	1.8	.7	1.1	1.4	2.5	.4	.8	.0	.0	.0	.0	.0	.0	.0	.0	75	11
>13	.0	.0	.0	.0	.4	.4	.4	.1	.6	.0	.6	.0	.4	.0	.0	.0	.0	.0	.0	21	15
INDET	2.3	1.7	1.3	1.1	.8	1.3	1.0	.4	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	75	5
TOTAL	24	50	83	98	121	82	72	51	85	19	16	3	3	1	0	0	0	0	0	708	8
PCT	3.4	7.1	11.7	13.8	17.1	11.6	10.2	7.2	12.0	2.7	2.3	.4	.4	.1	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1921-1970  
(OVER-ALL) 1857-1970

JULY

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	8.5	5.5	3.0	.0	.0	.0	.0	17.0	4.3	.0	.6	.0	.0	.0	78.1
NE	1.4	.9	.9	.0	.0	.0	.0	3.3	.2	.0	.5	.0	.9	.0	95.0
E	.9	1.7	.0	.0	.0	.0	.0	2.0	.0	.0	.9	.0	.0	.0	96.5
SE	.9	.0	.2	.0	.0	.0	.0	1.1	.2	.9	3.0	.0	.0	.0	94.9
S	1.5	3.1	1.0	.0	.0	.0	.0	5.0	1.9	.0	2.7	.8	.0	.0	89.0
SW	3.6	12.4	.4	.0	.0	.0	.0	16.9	4.9	1.0	.6	.0	.0	.0	77.3
W	3.5	13.2	1.9	.0	.0	.0	.0	18.7	5.4	.4	1.5	.0	.0	.0	74.4
NW	2.3	14.0	1.9	.0	.0	.0	.0	18.1	4.7	.4	1.5	.0	.0	.0	75.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	12.5	.0	.0	.0	.0	.0	87.5
TOT PCT	2.8	7.9	1.1	.0	.0	.0	.0	11.8	3.3	.4	1.4	.1	.1	.0	83.2
TOT OBS:	1183														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	3.5	7.1	.3	.0	.0	.0	.0	10.9	1.9	.6	1.0	.0	.0	.0	86.2
06009	1.6	8.0	1.2	.0	.0	.0	.0	10.8	4.0	.0	1.2	.0	.0	.0	84.1
12015	2.4	10.1	.9	.0	.0	.0	.0	13.4	3.9	.9	3.0	.0	.3	.0	78.6
18021	3.3	6.6	2.0	.0	.0	.0	.0	11.8	3.3	.3	.0	.3	.0	.0	84.6
TOT PCT	2.7	8.0	1.1	.0	.0	.0	.0	11.8	3.2	.5	1.3	.1	.1	.0	83.2
TOT OBS:	1204														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	2.4	2.7	2.0	.3	*		7.6	16.7		8.5	11.0	7.3	7.9	7.0	5.8	6.6	7.4
NE	.2	3.6	3.2	.9	.2	.0		8.0	12.8		9.0	12.2	6.2	8.5	6.2	5.8	10.3	7.7
E	.4	4.0	3.9	.4	*	.0		9.7	11.0		10.7	13.4	9.3	7.1	7.9	12.4	9.8	10.3
SE	.4	4.8	4.7	.3	.0	.0		10.2	10.9		8.4	11.6	11.5	9.7	13.1	11.9	7.9	7.1
S	.5	4.7	4.8	1.1	.1	.0		11.1	12.3		12.5	6.0	12.6	9.7	11.4	10.2	11.4	9.4
SW	.5	6.2	7.0	5.6	1.3	.1		21.6	17.5		21.4	16.7	20.3	21.5	22.6	23.8	21.7	
W	.4	4.3	5.9	6.1	2.0	.1		18.9	20.0		17.5	18.2	22.1	18.5	18.2	18.6	17.7	20.9
NW	.4	3.3	4.3	3.1	.7	.1		11.9	17.5		11.0	10.9	10.2	15.3	12.3	11.9	11.1	14.9
VAR	.1	.0	.0	.0	.0	.0		.1	2.0		.0	.0	.3	.0	.0	.0	.3	.0
CALM	.9							.9	.0		1.0	.0	.3	1.8	1.5	.9	1.0	.5
TOT OBS	80	691	753	394	92	9	2019		15.5		395	129	332	170	413	113	292	175
TOT PCT	4.0	34.2	37.3	19.5	4.6	.4		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	1.1	2.8	2.8	.9	.1		7.6	16.7	9.2	7.5	6.7	6.9
NE	1.6	4.4	1.5	.5	.0		8.0	12.8	9.8	7.0	6.1	9.3
E	2.1	6.1	1.4	.1	.0		9.7	11.0	11.4	8.6	8.8	10.0
SE	2.6	5.8	1.7	*	.0		10.2	10.9	9.2	10.9	12.9	7.6
S	2.4	6.0	2.3	.4	.0		11.1	12.3	10.9	11.6	11.1	10.7
SW	2.7	7.7	7.3	3.3	.5		21.6	17.5	20.2	20.7	22.5	23.0
W	2.2	5.5	6.0	4.3	.9		18.9	20.0	17.7	20.9	18.3	18.9
NW	1.6	4.0	4.3	1.7	.3		11.9	17.5	11.0	11.9	12.2	12.5
VAR	.1	.0	.0	.0	.0		.1	2.0	.0	.2	.0	.2
CALM	.9						.9	.0	.8	.8	1.3	.9
TOT OBS	349	855	552	227	36	2019		15.5	524	502	526	467
TOT PCT	17.3	42.3	27.3	11.2	1.8		100.0		100.0	100.0	100.0	100.0

JULY

PERIOD: (PRIMARY) 1921-1970  
(OVER-ALL) 1857-1970AREA 0018 PERTH NH  
29.95 112.7E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	.8	1.3	31.5	40.6	20.6	4.6	.6	16.1	100.0	524	
06009	.8	3.0	35.3	38.2	17.1	4.8	.8	15.4	100.0	502	
12015	1.3	4.8	35.9	33.1	20.5	4.0	.4	15.1	100.0	526	
18021	.9	3.0	34.3	37.3	19.7	4.9	.0	15.4	100.0	467	
TOT	19	61	691	753	394	92	9	15.5		2019	
PCT	.9	3.0	34.2	37.3	19.5	4.6	.4	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.3	.7	3.3	1.2		5.0
NE	3.0	1.0	2.9	1.0		4.0
E	4.8	1.6	2.6	1.7		3.6
SE	4.4	2.8	3.7	.6		3.5
S	3.1	3.0	5.2	1.0		4.3
SW	3.7	5.8	9.9	2.1		4.7
W	2.8	5.2	7.7	3.2		4.9
NW	2.0	2.2	3.6	1.7		4.8
VAR	.1	.0	.0	.1		5.0
CALM	.1	.0	.4	.1		5.2
TOT OBS	197	172	304	98	772	4.4
TOT PCT	25.5	22.3	39.4	12.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	F100+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.2	.1	.5	1.1	.3	.3	.0	.2	3.9	
NE	.0	.0	.2	.2	.8	.6	.7	.0	.0	.0	5.5	
E	.0	.0	.0	.3	1.1	1.3	.3	.0	.1	.2	7.4	
SE	.0	.0	.0	.3	.7	1.2	.5	.4	.1	.2	8.3	
S	.0	.0	.1	.5	2.0	1.5	1.0	.1	.0	.0	7.2	
SW	.1	.0	.2	1.5	3.3	1.8	1.8	.5	.0	.3	12.0	
W	.0	.0	.1	1.6	3.9	2.4	.5	.3	.0	.0	10.1	
NW	.0	.0	.5	.6	1.4	.7	.6	.2	.0	.0	5.5	
VAR	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
CALM	.0	.0	.0	.0	.4	.1	.0	.0	.0	.0	.1	
TOT OBS	1	0	10	38	109	84	44	13	2	7	464	772
TOT PCT	.1	.0	1.3	4.9	14.1	10.9	5.7	1.7	.3	.9	60.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>400	2.7	2.8	2.8	2.8	2.8	2.8	2.8	2.8
>350	8.5	9.0	9.0	9.0	9.0	9.0	9.0	9.0
>300	17.4	19.2	19.6	19.6	19.6	19.6	19.6	19.6
>1000	29.0	32.7	33.5	33.5	33.5	33.5	33.5	33.5
>600	32.4	37.4	38.4	38.4	38.4	38.4	38.4	38.4
>300	32.6	37.9	39.3	39.3	39.6	39.6	39.7	39.7
>150	32.6	37.9	39.3	39.3	39.6	39.6	39.7	39.7
>0	32.6	37.9	39.4	39.4	39.7	39.7	39.8	39.8
TOTAL	258	300	312	312	314	314	315	315

TOTAL NUMBER OF OBS: 791

PCT FREQ NH &lt;5/8: 60.2

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	9.6	9.8	13.6	12.7	12.4	9.0	13.3	9.2	10.4	.0	896

PERIOD: (PRIMARY) 1921-1970  
(OVER-ALL) 1857-1970

JULY

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
1/2<1	PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1<2	PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	*	.1	.0	.0	.0	.2	
2<5	PCP	.3	.1	.0	.0	.1	.1	.3	.1	.0	.0	.9	
	NO PCP	.0	.1	.1	.2	.1	.3	.2	.2	.0	.0	1.1	
	TOT %	.3	.2	.1	.2	.2	.4	.5	.3	.0	.0	2.0	
5<10	PCP	.7	.0	.1	.1	.4	2.4	2.4	1.3	.0	.0	7.4	
	NO PCP	1.6	2.9	2.0	2.1	2.4	4.8	4.9	2.6	.0	.0	23.2	
	TOT %	2.3	2.9	2.0	2.2	2.8	7.1	7.3	3.9	.0	.0	30.6	
10+	PCP	.2	.1	.2	.0	.1	1.2	.9	.6	.0	.0	3.2	
	NO PCP	4.2	5.7	7.4	7.5	7.8	13.0	10.9	6.2	.2	.7	63.7	
	TOT %	4.4	5.8	7.6	7.5	7.9	14.2	11.8	6.9	.2	.7	66.9	
TOT OBS													1173
TOT PCT		7.0	9.0	9.7	9.8	10.9	21.8	19.8	11.1	.2	.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	*	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	*	.0	.1	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.1	*	.1	.1	.0	.0	.3	
	TOT %	.0	.1	*	.0	.2	*	.2	.1	.0	.0	.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.1	.1	.1	.0	.1	.1	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.1	*	.1	.0	.0	.3	
	22+	.1	.1	.0	.0	.1	.3	.3	*	.0	.0	.9	
	TOT %	.2	.1	.1	.1	.1	.4	.4	.2	.0	.0	1.6	
5<10	0-3	.0	.0	.1	.3	.2	.0	.1	.1	.0	.2	1.0	
	4-10	.8	1.2	1.5	1.0	1.2	1.6	1.1	.8	.0	.0	9.2	
	11-21	1.1	1.5	1.3	1.7	1.7	3.7	2.0	1.4	.0	.0	14.5	
	22+	.9	.5	.2	.1	.6	3.3	4.4	1.4	.0	.0	11.2	
	TOT %	2.8	3.2	3.0	3.1	3.7	8.6	7.6	3.7	.0	.2	35.9	
10+	0-3	*	.2	.4	.3	.3	.4	.1	.1	.1	.8	2.7	
	4-10	1.5	2.5	3.3	3.6	3.2	4.2	2.7	2.2	.0	.0	23.2	
	11-21	1.6	2.1	3.0	3.4	3.4	4.8	3.9	2.6	.0	.0	24.8	
	22+	.9	.1	.2	.3	.6	3.1	4.1	1.7	.0	.0	11.0	
	TOT %	4.0	4.9	6.9	7.6	7.4	12.5	10.9	6.7	.1	.8	61.8	
TOT OBS													1631
TOT PCT		7.0	8.4	10.0	10.8	11.3	21.5	19.1	10.7	.1	1.0	100.0	



JULY

PERIOD: (PRIMARY) 1921-1970  
(OVER-ALL) 1857-1970AREA 0018 PERTH NW  
29.95 112.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.9	4.9	15.7	13.5	8.5	2.2	.4	1.3	47.5	52.5	223
06009	.0	.0	1.0	3.8	13.9	9.6	7.2	1.9	.0	1.0	38.3	61.7	209
12015	.5	.0	1.0	6.3	9.7	8.7	2.9	1.0	.0	.5	30.6	69.4	206
18021	.0	.0	2.0	3.5	13.1	8.1	4.5	1.0	.5	.5	33.3	66.7	198
TOT	1	0	10	39	110	84	49	13	2	7	315	521	836
PCT	.1	.0	1.2	4.7	13.2	10.0	5.9	1.6	.2	.8	37.7	62.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.0	.5	1.4	35.5	62.5	440
06009	.0	.3	.5	1.3	33.7	64.2	386
12015	.0	.2	.9	2.0	40.0	56.9	452
18021	.0	.0	.3	1.6	33.2	65.0	386
TOT	1	2	9	26	595	1031	1664
PCT	.1	.1	.5	1.6	35.8	62.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <500D	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.9	7.4	41.9	50.7	215
06009	.0	1.0	6.0	33.8	60.2	201
12015	.5	1.6	8.5	25.0	66.5	188
18021	.0	2.1	6.4	28.9	64.7	187
TOT	1	11	56	259	476	791
PCT	.1	1.4	7.1	32.7	60.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.1	.3	.4	.4	.2	.1	18	1.5
65/69	.0	.1	.5	4.6	7.2	8.0	4.6	1.6	313	26.6
60/64	.0	.1	1.3	7.1	20.1	15.0	8.3	3.4	650	55.3
55/59	.0	.0	.1	2.1	5.1	5.3	2.8	.9	191	16.2
50/54	.0	.0	.0	.0	.0	.1	.2	.1	4	.3
TOTAL	0	2	23	167	386	338	189	71	1176	100.0
PCT	.0	.2	2.0	14.2	32.8	28.7	16.1	6.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
.5	.2	.2	.1	.0	.0	.2	.3	.0	.0	
3.4	3.0	2.5	3.2	2.4	2.5	4.0	5.2	.1	.3	
3.0	4.7	5.8	5.4	7.1	12.4	11.3	4.9	.1	.5	
.4	1.6	1.6	.8	2.7	5.9	2.9	.4	.0	.0	
.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	
7.3	9.5	10.1	9.5	12.3	21.0	18.5	10.9	.2	.9	

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	75	72	68	62	57	55	52	62.4	514
06009	75	72	69	64	58	55	54	63.7	485
12015	78	72	67	62	58	56	54	62.5	521
18021	70	69	66	62	57	54	50	61.6	468
TOT	78	71	68	62	57	55	50	62.6	1988

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	13.2	28.1	34.2	17.7	6.8	72	310
06009	.0	22.3	38.1	22.3	11.5	5.8	58	278
12015	.0	15.8	37.9	26.1	14.2	6.1	70	330
18021	.0	15.1	25.4	31.7	21.8	6.0	73	284
TOT	0	198	390	344	196	74	71	1202

JULY

PERIOD: (PRIMARY) 1921-1970  
(OVER-ALL) 1857-1970

TABLE 17

AREA 0018 PERTH NW  
29.95 112.7EPCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WD FOG
9/10	.0	.0	.0	.0	.2	.0	.0	.0	2	.0	.2
6	.0	.0	.0	.0	.0	.0	.4	.0	4	.0	.4
5	.0	.0	.0	.2	.0	.0	.2	.1	5	.0	.5
4	.0	.0	.0	.1	.1	.1	.1	.0	4	.0	.4
3	.0	.0	.0	.2	.6	.2	.1	.0	11	.1	1.0
2	.0	.0	.0	.8	.4	.3	.0	.0	15	.1	1.5
1	.0	.0	.0	1.2	2.1	1.1	.0	.0	43	.0	4.5
0	.0	.1	.5	2.2	2.4	.5	.0	.0	55	.1	5.6
-1	.0	.0	.6	3.7	3.6	.7	.0	.0	84	.3	8.4
-2	.0	.0	1.1	3.8	3.9	.2	.0	.0	88	.0	9.1
-3	.0	.0	1.6	6.3	4.3	.1	.0	.0	118	.4	11.6
-4	.0	.1	2.5	7.2	1.5	.1	.0	.0	109	.3	11.0
-5	.0	.2	3.5	7.2	1.7	.0	.0	.0	121	.1	12.5
-6	.0	.1	4.0	5.0	1.2	.0	.0	.0	100	.2	10.2
-7/-8	.0	.4	4.6	5.6	.5	.0	.0	.0	107	.0	11.1
-9/-10	.1	.5	4.7	1.6	.0	.0	.0	.0	66	.0	6.9
-11/-13	.2	.3	1.8	.2	.0	.0	.0	.0	24	.0	2.5
-14/-16	.1	.3	.3	.0	.0	.0	.0	.0	7	.0	.7
TOTAL	4	20	243	437	217	33	8	1	963	16	947
PCT	.4	2.1	25.2	45.4	22.5	3.4	.8	.1	100.0	1.7	98.3

PERIOD: (OVER-ALL) 1953-1970

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	<1	.0	.6	.0	.0	.0	.0	.6
1-2	.0	1.1	.6	.0	.0	.0	1.6	1-2	.0	1.8	.8	.0	.0	.0	2.7
3-4	.0	.3	.8	.0	.0	.0	1.1	3-4	.0	.0	1.7	.0	.0	.0	1.7
5-6	.0	.4	.8	.4	.0	.0	1.6	5-6	.0	.4	.6	.1	.0	.0	1.1
7	.0	.0	.0	.3	.0	.0	.3	7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.2	.0	.0	.0	.2	8-9	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.3	.0	.0	.3	10-11	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.5	.0	.0	.5	12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.0	2.3	1.5	.0	.0	5.7	TOT PCT	.0	2.9	3.2	.1	.0	.0	6.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8	<1	.0	.8	.0	.0	.0	.0	.8
1-2	.6	2.5	.5	.0	.0	.0	3.6	1-2	.0	1.9	.6	.0	.0	.0	2.5
3-4	.0	1.3	5.1	.0	.0	.0	6.4	3-4	.0	2.0	2.2	.0	.0	.0	4.1
5-6	.0	.0	1.2	.0	.0	.0	1.2	5-6	.0	.6	1.5	.0	.0	.0	2.0
7	.0	.0	.0	.0	.0	.0	.0	7	.0	.0	.8	.0	.0	.0	1.1
8-9	.0	.0	.0	.0	.0	.0	.0	8-9	.0	.3	.0	.0	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	10-11	.0	.0	.3	.0	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	12	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	13-16	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	17-19	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	20-22	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	23-25	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	26-32	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	33-40	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	41-48	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	49-60	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	61-70	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	71-86	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	87+	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	4.6	6.8	.0	.0	.0	12.0	TOT PCT	.0	5.5	5.3	.3	.0	.0	11.1

PERIOD: (OVER-ALL) 1963-1970

JULY

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S								SW							
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.6	1.1	.0	.0	.0	.0	1.6		.4	1.5	.0	.0	.0	.0	1.8	
1-2	.2	2.5	.6	.0	.0	.0	3.3		.1	2.9	.6	.0	.0	.0	3.5	
3-4	.0	1.8	2.0	.0	.0	.0	3.8		.0	1.3	2.2	.3	.0	.0	3.7	
5-6	.0	.0	2.5	.0	.0	.0	2.5		.0	.1	2.0	1.5	.3	.0	3.9	
7	.0	.0	1.1	.0	.0	.0	1.1		.0	.0	.4	1.0	.4	.0	1.7	
8-9	.0	.0	.0	.3	.0	.0	.3		.0	.0	.6	.6	.6	.0	1.8	
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.3	.6	.0	.0	.9	
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.3	.1	.0	.0	.4	
13-16	.0	.0	.3	.0	.0	.0	.3		.0	.0	.0	.1	.0	.0	.1	
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.1	.3	.0	.0	.4	
20-22	.0	.0	.0	.3	.3	.0	.6		.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.1	.0	.1	
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.8	5.3	6.4	.6	.3	.0	13.3		.4	5.7	6.3	4.4	1.3	.0	18.1	

HGT	W								NW								TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.2	.3	.0	.0	.0	.0	.5		.0	.3	.0	.0	.0	.0	.3		
1-2	.0	1.5	.6	.0	.0	.0	2.1		.3	.4	.8	.0	.0	.0	1.5		
3-4	.0	2.6	2.6	.3	.0	.0	5.5		.0	.4	.9	.0	.0	.0	1.3		
5-6	.0	.5	2.9	.8	.0	.0	4.1		.0	.3	2.1	.6	.0	.0	2.9		
7	.0	.0	1.0	2.0	.5	.0	3.5		.0	.0	.4	.1	.0	.0	.5		
8-9	.0	.0	.0	1.9	.0	.0	1.9		.0	.0	.3	.3	.0	.0	.6		
10-11	.0	.0	.0	2.1	.0	.0	2.1		.0	.0	.3	.9	.0	.0	1.2		
12	.0	.0	.0	.6	.0	.0	.6		.0	.0	.0	.5	.0	.0	.5		
13-16	.0	.0	.0	1.6	.0	.0	1.6		.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.2	.3	.0	.0	.5		.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.3	.0	.3		.0	.0	.0	.0	.0	.0	.3		
23-25	.0	.0	.0	.0	.2	.0	.2		.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.2	4.9	7.2	9.6	1.0	.0	22.9		.3	1.3	4.8	2.6	.0	.0	9.0	98.3	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.6	5.8	.0	.0	.0	.0	9.4	
1-2	1.1	14.6	5.0	.0	.0	.0	20.7	
3-4	.0	9.6	17.1	.6	.0	.0	27.3	
5-6	.0	2.2	13.2	3.3	.3	.0	19.0	
7	.0	.0	3.6	3.6	.8	.0	8.0	
8-9	.0	.3	1.1	3.0	.6	.0	5.0	
10-11	.0	.0	.8	3.9	.0	.0	4.7	
12	.0	.0	.3	1.7	.0	.0	1.9	
13-16	.0	.0	.3	1.7	.0	.0	1.9	
17-19	.0	.0	.3	.6	.0	.0	.8	
20-22	.0	.0	.0	.6	.0	.0	1.1	
23-25	.0	.0	.0	.3	.0	.0	.3	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.7	32.5	41.6	18.7	2.5	.0	100.0	363

PERIOD: (OVER-ALL) 1949-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.4	2.8	6.0	1.6	1.1	.7	.2	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	75
6-7	.0	.2	4.6	4.6	3.2	2.6	2.3	1.1	1.2	.5	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	119
8-9	.0	.2	1.1	2.1	4.2	3.9	4.9	1.6	1.4	.2	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	118
10-11	.0	.4	.7	2.1	3.7	2.8	3.5	2.1	3.0	.5	.5	.2	.4	.0	.0	.0	.0	.0	.0	.0	113
12-13	.0	.0	.4	.4	.5	1.4	1.6	1.2	1.4	.2	.4	1.1	.0	.0	.0	.0	.0	.0	.0	.0	48
15-17	.0	.0	.0	.0	.4	.7	1.6	1.1	1.8	.9	.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	42
INDET	1.4	1.2	1.1	2.1	.4	2.3	.5	.5	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	56
TOTAL	10	27	78	73	76	82	83	46	52	14	13	12	4	0	0	0	0	0	0	0	570
PCT	1.8	4.7	13.7	12.8	13.3	14.4	14.6	8.1	9.1	2.5	2.3	2.1	.7	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1921-1970  
(OVER-ALL) 1857-1970

AUGUST

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	
N	3.2	4.3	1.1	.0	.0	.0	.0	8.6	3.2	3.2	.0	.0	.0	.0	84.9
NE	.0	1.2	1.6	.0	.0	.0	.0	2.8	.0	2.4	.0	.0	.0	.0	94.8
E	.0	3.1	.0	.0	.0	.0	.0	3.1	.0	.0	.0	.0	.0	.0	96.9
SE	3.3	1.4	.6	.0	.0	.0	.0	5.3	1.7	.6	.0	.0	.6	.0	92.4
S	1.4	3.9	.0	.0	.0	.0	.0	5.3	1.9	.0	.5	.0	.0	.0	92.2
SW	2.9	10.4	.4	.0	.0	.0	.0	13.7	5.0	.0	.2	.0	.0	.0	81.1
W	1.7	15.5	1.2	.0	.0	.0	.0	18.5	4.1	.5	.2	.0	.0	.0	76.8
NW	6.3	15.4	.4	.0	.0	.0	.0	22.1	2.5	1.3	.7	.0	.0	.0	73.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	33.3	.0	.0	.0	.0	.0	66.7
CALM	11.1	.0	.0	.0	.0	.0	.0	11.1	.0	.0	.0	.0	.0	.0	88.9
TOT PCT	2.5	8.3	.6	.0	.0	.0	.0	11.4	2.9	.6	.2	.0	.1	.0	85.0
TOT OBS:	1224														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	
00603	2.2	7.9	.3	.0	.0	.0	.0	10.4	4.4	.0	.0	.0	.3	.0	84.9
06609	1.6	6.6	.8	.0	.0	.0	.0	8.9	3.1	.0	.0	.0	.0	.0	87.9
12615	3.5	7.7	.5	.0	.0	.0	.0	11.7	1.9	1.1	.8	.0	.0	.0	84.8
18621	2.6	10.5	.7	.0	.0	.0	.0	13.8	2.3	1.0	.0	.0	.0	.0	82.9
TOT PCT	2.6	8.2	.6	.0	.0	.0	.0	11.3	2.9	.6	.2	.0	.1	.0	85.0
TOT OBS:	1253														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.3	1.7	1.3	.3	.1	.0		3.7	11.6		2.8	5.3	3.0	6.6	3.3	3.2	4.8	2.7
NE	.3	2.5	1.8	.2	.0	.0		4.9	10.4		7.2	6.8	5.1	3.8	3.2	3.2	3.9	4.8
E	.4	3.1	4.3	.1	.0	.0		8.0	11.2		10.0	12.1	11.2	3.3	5.3	6.0	8.3	5.1
SE	.4	6.4	7.6	1.1	.1	.0		15.6	12.0		15.0	15.1	14.0	15.2	16.5	13.9	19.6	13.3
S	.8	7.2	6.6	1.1	.1	.1		15.9	11.7		14.7	10.5	18.1	17.8	17.7	9.7	16.0	15.4
SW	.6	6.8	9.7	3.4	.3	.0		20.7	14.3		21.3	15.4	21.6	20.3	19.7	25.9	18.6	23.5
W	.6	6.7	7.4	4.7	.5	.0		19.9	15.4		19.8	24.3	17.4	21.7	21.2	22.7	15.7	22.3
NW	.6	3.9	4.7	1.4	.1	.1		10.3	13.5		9.0	9.6	7.8	11.2	11.5	13.4	11.8	11.1
VAR	.2	.0	.0	.0	.0	.0		.2	2.0		.2	.0	.6	.0	.0	.0	.0	.0
CALM	1.0							1.0	.0		.0	.9	1.2	.0	1.5	1.9	1.5	1.8
TOT OBS	100	745	837	239	23	2	1946		13.0		401	114	334	143	408	108	272	166
TOT PCT	5.1	38.3	43.0	12.3	1.2	.1		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)						TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+					00	06	12	18	21
N	1.0	1.9	.6	.2	.0			3.7	11.6	3.3	4.1	3.3	4.0	
NE	1.3	2.9	.6	.1	.0			4.9	10.4	7.1	4.7	3.2	4.2	
E	1.7	4.8	1.5	.0	.0			8.0	11.2	10.4	8.9	5.5	7.1	
SE	2.8	10.0	2.5	.3	.0			15.6	12.0	15.0	14.4	15.9	17.2	
S	3.7	8.9	2.8	.3	.1			15.9	11.7	13.8	18.0	16.0	15.8	
SW	3.0	9.7	6.8	1.0	.1			20.7	14.3	20.0	21.2	21.0	20.4	
W	3.3	8.6	5.7	2.2	.1			19.9	15.4	20.8	18.7	21.5	18.2	
NW	2.2	4.7	2.7	.6	.1			10.3	13.5	9.1	8.8	11.9	11.5	
VAR	.2	.0	.0	.0	.0			.2	2.0	.2	.4	.0	.0	
CALM	1.0							1.0	.0	.2	.8	1.6	1.6	
TOT OBS	395	1001	451	91	8	1946			13.0	515	477	516	438	
TOT PCT	20.3	51.4	23.2	4.7	.4			100.0		100.0	100.0	100.0	100.0	

AUGUST

PERIOD: (PRIMARY) 1921-1970  
(OVER-ALL) 1857-1970AREA 0018 PERTH NW  
29.95 112.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
00003	.2	3.7	41.7	41.4	11.7	1.4	.0	12.8	100.0	515
06009	.8	4.2	33.3	45.9	14.9	.6	.2	13.6	100.0	477
12015	1.6	4.7	38.8	41.9	12.2	1.0	.0	12.6	100.0	516
18021	1.6	3.9	39.0	43.2	10.3	1.8	.2	12.9	100.0	438
TOT	20	80	745	837	239	23	2	13.0		1946
PCT	1.0	4.1	38.3	43.0	12.3	1.2	.1	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.7	.5	1.3	1.0		5.3
NE	3.2	1.7	1.6	.1		2.6
E	5.3	1.7	2.9	.7		2.9
SE	7.1	4.7	4.7	1.3		3.4
S	4.9	4.7	5.7	1.7		4.0
SW	3.2	4.6	9.2	1.5		4.8
W	2.7	4.4	8.4	1.7		4.9
NW	1.2	1.0	4.2	2.4		5.7
VAR	.1	.1	.1	.0		4.0
CALM	.6	.0	.1	.1		2.5
TOT OBS	231	179	305	83	798	4.2
TOT PCT	28.9	22.4	38.2	10.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)  
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.4	.6	.3	.4	.1	.0	.3	1.3	
.0	.0	.0	.1	.8	.1	.1	.0	.0	.3	4.2	
.0	.0	.1	.1	.9	.7	.5	.1	.0	.0	7.7	
.0	.1	.0	.5	1.2	1.7	.6	.5	.0	.1	13.1	
.0	.0	.1	1.0	2.9	1.5	.8	.1	.0	.0	10.5	
.0	.0	.2	.9	2.5	2.7	1.4	.3	.1	.0	10.5	
.0	.1	.4	1.2	2.3	2.7	1.0	.3	.0	.0	9.2	
.0	.1	.0	.9	1.9	.9	.5	1.0	.0	.0	3.8	
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.3	
.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.6	
0	2	7	41	107	85	44	18	1	5	488	798
.0	.3	.9	5.1	13.4	10.7	5.5	2.3	.1	.6	61.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>5000	.9	.9	.9	.9	.9	.9	.9	.9
>5000	2.9	3.1	3.1	3.1	3.1	3.1	3.1	3.1
>5000	7.9	8.7	8.7	8.7	8.7	8.7	8.7	8.7
>5000	17.1	19.1	19.2	19.2	19.2	19.2	19.2	19.2
>5000	28.8	32.0	32.5	32.5	32.5	32.5	32.5	32.5
>5000	31.8	36.5	37.5	37.5	37.5	37.5	37.5	37.6
>5000	32.5	37.2	38.3	38.3	38.3	38.3	38.3	38.5
>5000	32.6	37.5	38.6	38.6	38.6	38.6	38.6	38.7
>5000	32.6	37.5	38.6	38.6	38.6	38.6	38.6	38.7
TOTAL	263	302	311	311	311	311	311	312

TOTAL NUMBER OF OBS: 806

PCT FREQ NH &lt; 5/8: 61.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
11.5	11.4	12.9	11.3	13.0	10.1	9.5	10.7	9.6	.0	877



PERIOD: (PRIMARY) 1921-1970  
(OVER-ALL) 1857-1970

AUGUST

AREA 0018 PERTH NW  
29.9S 112.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.1	.0	.0	.0	.0	.0	.0	*	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.0	.0	.0	*	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	*	.1	.0	.1	.0	.2	.2	.0	.1	.7	
	NO PCP	.1	.0	.0	.1	.1	*	.2	*	.0	.0	.6	
	TOT %	.1	*	.1	.1	.2	*	.4	.3	.0	.1	1.2	
5<10	PCP	.2	.1	*	.4	.5	2.2	3.2	1.8	.0	.0	8.5	
	NO PCP	1.0	1.1	1.5	2.3	3.1	5.0	4.8	3.3	.0	.2	22.3	
	TOT %	1.2	1.2	1.5	2.7	3.7	7.2	8.0	5.1	.0	.2	30.8	
10+	PCP	.1	.0	.2	.4	.1	.5	.4	.5	.0	.0	2.1	
	NO PCP	2.3	3.9	6.9	11.1	11.7	12.1	11.4	5.4	.2	.5	65.7	
	TOT %	2.5	3.9	7.1	11.5	11.8	12.6	11.8	5.9	.2	.5	67.8	
TOT OBS													1274
TOT PCT		3.8	5.1	8.7	14.3	15.7	19.8	20.1	11.4	.2	.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	
	11-21	*	.0	.0	.0	.0	.0	.0	*	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	*	.0	.0	.0	.0	.1	.1	*	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.2	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	*	.1	*	.1	*	.1	.1	.0	.0	.5	
	11-21	.1	.0	.0	.1	*	.0	.1	.1	.0	.0	.4	
	22+	.0	.0	.0	*	*	.0	.2	.0	.0	.0	.2	
	TOT %	.1	*	.1	.1	.2	*	.4	.2	.0	.1	1.2	
5<10	0-3	.2	.1	*	.2	.4	.2	.2	.3	.0	.2	1.7	
	4-10	.6	.9	.9	1.5	1.7	2.1	2.4	1.6	.0	.0	11.8	
	11-21	.2	.6	.7	1.8	2.0	3.6	2.4	1.7	.0	.0	13.0	
	22+	.1	.0	.1	.4	.6	2.0	2.8	1.1	.0	.0	7.1	
	TOT %	1.0	1.5	1.8	3.9	4.8	7.8	7.9	4.8	.0	.2	33.6	
10+	0-3	.0	.2	.4	.1	.4	.4	.2	.2	.4	.4	2.6	
	4-10	1.1	1.8	2.1	5.0	5.8	4.6	4.0	1.9	.0	.0	26.3	
	11-21	.9	1.4	3.0	6.2	4.6	5.4	5.0	2.9	.0	.0	29.8	
	22+	.2	.2	*	.9	.7	1.5	2.2	.5	.0	.0	6.1	
	TOT %	2.2	3.5	6.1	12.1	11.6	11.9	11.4	5.4	.2	.4	64.8	
TOT OBS													1640
TOT PCT		3.4	5.1	7.9	16.1	16.6	20.0	19.7	10.4	.2	.7	100.0	

## AUGUST

PERIOD: (PRIMARY) 1921-1970  
(OVER-ALL) 1857-1970

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH  $\geq 4/8$ ) AND  
OCCURRENCE OF NH  $< 5/8$  BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $< 5/8$ ANY HGT	TOTAL OBS
00003	.0	.5	1.4	6.4	16.0	11.0	8.2	1.4	.0	.5	45.2	54.8	219
06009	.0	.5	.5	2.7	11.3	12.6	5.0	2.3	.5	1.4	36.5	63.5	222
12015	.0	.0	1.0	5.5	11.4	9.0	3.0	2.0	.0	.5	32.3	67.7	201
18021	.0	.0	.5	5.1	12.2	7.6	5.1	3.0	.0	.5	34.0	66.0	197
TOT PCT	0 .0	2 .2	7 .8	41 4.9	107 12.8	85 10.1	45 5.4	18 2.1	1 .1	6 .7	312 37.2	527 62.8	839 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	$< 1/2$	$1/2 < 1$	$1 < 2$	$2 < 5$	$5 < 10$	$10 < +$	TOTAL OBS
00003	.0	.0	.2	2.0	32.1	65.7	443
06009	.0	.0	.3	.0	29.4	70.4	385
12015	.4	.2	.4	1.9	39.6	57.4	470
18021	.3	.0	.0	.3	36.3	63.1	388
TOT PCT	3 .2	1 .1	4 .2	19 1.1	582 34.5	1077 63.9	1686 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH  $\geq 4/8$ ), BY HOUR

HOUR (GMT)	$< 150$ $< 50 YD$	$< 600$ $< 1$	$< 1000$ $< 5$	$1000+$ AND $5+$	NH $< 5/8$ AND $5+$	TOTAL OBS
00003	.0	1.9	9.8	36.4	53.7	214
06009	.0	.9	3.7	33.8	62.5	216
12015	.5	1.6	7.4	27.1	65.4	188
18021	.0	.5	5.9	29.8	64.4	188
TOT PCT	1 .1	10 1.2	54 6.7	258 32.0	494 61.3	806 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
70/74	.0	.0	.0	.2	1.2	.1	.0	.2	19	1.6
65/69	.0	.1	.6	2.4	5.3	6.1	4.1	1.8	244	20.5
60/64	.0	.1	1.2	7.8	21.0	15.0	8.2	2.5	661	55.4
55/59	.0	.0	.1	2.8	6.1	8.3	3.5	1.3	263	22.0
50/54	.0	.0	.0	.0	.2	.3	.1	.6	6	.5
TOTAL	0	2	22	154	400	354	192	70	1193	100.0
PCT	.0	.2	1.8	12.8	33.5	29.7	16.1	5.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
70/74	.1	.2	.4	.2	.4	.1	*	.1	.0	.1
65/69	2.1	1.6	1.6	3.6	2.1	1.9	3.5	3.6	.1	.4
60/64	1.2	3.8	5.0	9.3	8.4	11.4	10.2	5.7	.2	.3
55/59	.2	.6	1.8	2.8	5.5	7.4	2.9	.8	.0	.1
50/54	.1	.0	.0	.2	.1	.1	.1	.0	.0	.0
TOTAL	3.6	6.2	8.8	16.0	16.5	20.9	16.7	10.2	.3	.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	78	73	68	62	57	54	50	62.3	504
06009	74	71	69	64	58	55	54	63.7	477
12015	81	72	67	62	57	55	51	62.1	521
18021	69	68	66	61	56	54	52	61.0	444
TOT	81	71	68	62	57	54	50	62.3	1946

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	14.1	29.4	32.5	16.6	7.5	72	320		
06009	.0	22.1	40.4	22.8	10.5	4.2	58	285		
12015	.0	11.8	31.1	31.4	17.2	8.5	72	331		
18021	.0	11.2	34.4	31.3	19.7	3.4	72	294		
TOT	0	180	413	365	198	74	71	1230		

PERIOD: (PRIMARY) 1921-1970  
(OVER-ALL) 1857-1970

AUGUST

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FUG	WD FOG
11/13	.0	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
7/8	.0	.0	.0	.0	.0	.0	.1	.1	2	.0	.2
6	.0	.0	.0	.0	.1	.0	.1	.0	2	.0	.2
5	.0	.0	.0	.1	.1	.1	.1	.0	4	.0	.4
4	.0	.0	.0	.1	.0	.4	.2	.0	7	.0	.7
3	.0	.0	.1	.2	.9	.3	.2	.0	17	.0	1.7
2	.0	.1	.6	.4	.3	.3	.0	.0	17	.0	1.7
1	.1	.0	.2	1.1	1.7	.6	.0	.0	37	.0	3.7
0	.0	.0	.6	2.4	2.3	.5	.0	.0	58	.0	5.8
-1	.0	.0	.9	4.9	3.0	.5	.0	.0	93	.0	9.4
-2	.0	.0	1.2	6.2	2.6	.0	.0	.0	100	.0	10.1
-3	.0	.0	2.2	7.3	1.4	.2	.0	.0	110	.0	11.1
-4	.0	.0	2.7	6.2	1.1	.0	.0	.0	100	.1	10.0
-5	.0	.2	5.2	5.2	.8	.0	.0	.0	114	.0	11.5
-6	.0	.1	5.1	4.9	.4	.0	.0	.0	105	.0	10.6
-7/-8	.1	1.0	7.4	4.4	.3	.0	.0	.0	131	.0	13.2
-9/-10	.0	1.7	3.4	1.3	.0	.0	.0	.0	64	.0	6.4
-11/-13	.0	1.0	1.6	.3	.0	.0	.0	.0	29	.0	2.9
-14/-16	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
-17/-19	.1	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	3		311		150		7		993	1	992
PCT	.3	4.2	31.3	45.2	15.1	2.9	.7	.2	100.0	.1	99.9

PERIOD: (OVER-ALL) 1963-1970

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.1
1-2	.0	.2	.0	.0	.0	.0	.2	.0	2.1	.3	.0	.0	.0	2.5
3-4	.0	.7	.7	.0	.0	.0	1.4	.0	1.1	1.1	.0	.0	.0	2.2
5-6	.0	.4	.4	.2	.0	.0	1.0	.0	.1	.8	.1	.0	.0	1.0
7	.0	.0	1.0	.0	.0	.0	1.0	.0	.0	.1	.0	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.5	2.1	.2	.0	.0	3.7	.0	3.4	2.4	.1	.0	.0	5.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.0	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.3
1-2	.0	1.7	.6	.0	.0	.0	2.4	.0	2.8	1.9	.0	.0	.0	4.7
3-4	.0	.2	4.1	.0	.0	.0	4.3	.0	1.0	2.6	.0	.0	.0	3.6
5-6	.0	.0	1.6	.2	.0	.0	1.8	.0	.0	2.5	.7	.0	.0	3.2
7	.0	.0	.9	.0	.0	.0	.9	.0	.0	1.0	.2	.3	.0	1.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	1.9	7.3	.2	.0	.0	9.7	.3	3.8	8.5	1.5	.3	.0	14.3

PERIOD: (OVER-ALL) 1963-1970

AUGUST

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	1.2	.0	.0	.0	.0	1.2	.5	.3	.0	.0	.0	.0	.8	
1-2	.2	5.6	1.5	.0	.0	.0	7.2	.6	3.9	.8	.0	.0	.0	5.4	
3-4	.0	2.2	.8	.0	.0	.0	3.0	.0	3.1	3.0	.3	.0	.0	6.4	
5-6	.0	.3	3.5	.8	.0	.0	4.6	.0	.1	2.6	.6	.0	.0	3.3	
7	.0	.0	2.0	.6	.0	.0	2.6	.0	.3	1.0	.1	.3	.0	1.6	
8-9	.0	.0	.0	.9	.0	.0	.9	.0	.0	.1	.5	.0	.0	.5	
10-11	.0	.0	.5	.5	.0	.0	1.0	.0	.0	.0	.8	.0	.0	.8	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	9.2	8.3	2.8	.0	.0	20.5	1.1	7.7	7.6	2.6	.3	.0	19.3	

HGT	W							NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.3	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.3	
1-2	.3	2.0	1.3	.0	.0	.0	3.6	.0	1.7	.3	.0	.0	.0	2.0	
3-4	.0	1.7	3.4	1.0	.0	.0	6.1	.0	.9	1.7	.0	.0	.0	2.6	
5-6	.0	.6	1.9	.0	.0	.0	2.5	.0	.1	1.4	.3	.0	.0	1.8	
7	.0	.0	.6	.4	.2	.0	1.2	.0	.0	.6	.0	.1	.0	.7	
8-9	.0	.0	.7	.4	.3	.0	1.4	.0	.0	.5	.3	.0	.0	.8	
10-11	.0	.0	.0	.2	.0	.0	.4	.0	.0	.0	.3	.0	.0	.3	
12	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
13-16	.0	.0	.0	.7	.0	.0	.7	.0	.0	.0	.3	.0	.0	.3	
17-19	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	4.6	7.9	3.4	.5	.0	16.6	.0	3.0	4.6	1.1	.1	.0	8.8	98.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.6	2.3	.0	.0	.0	.0	4.9	
1-2	1.0	20.1	6.7	.0	.0	.0	27.8	
3-4	.0	10.8	17.5	1.3	.0	.0	29.6	
5-6	.0	1.5	14.7	2.8	.0	.0	19.1	
7	.0	.3	7.2	1.3	.8	.0	9.5	
8-9	.0	.0	1.3	2.1	.3	.0	3.6	
10-11	.0	.0	.5	2.1	.0	.0	2.6	
12	.0	.0	.0	.3	.0	.0	.3	
13-16	.0	.0	.3	1.3	.0	.0	1.3	
17-19	.0	.0	.3	.3	.0	.0	.5	
20-22	.0	.0	.0	.5	.0	.0	.5	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.6	35.1	48.5	11.9	1.0	.0	100.0	388

PERIOD: (OVER-ALL) 1949-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-46	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
6-7	1.2	6.5	7.2	4.2	1.7	.3	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	133	4
8-9	.0	.3	4.3	6.7	5.7	2.3	1.8	.3	.5	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	134	6
10-11	.0	.2	1.2	4.3	5.8	3.0	3.5	2.2	1.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	135	8
12-13	.0	.3	.0	.7	3.8	2.8	2.5	1.5	1.7	1.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	89	10
14-15	.0	.0	.2	.0	.8	1.7	1.5	1.2	1.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	44	10
16-17	.0	.0	.0	.0	.3	.2	.5	.7	.8	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	17	12
INDET	1.2	.8	.8	1.3	1.2	1.0	1.3	.2	.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	51	6
TOTAL	14	49	82	103	116	68	70	37	39	16	5	1	0	0	0	0	0	0	0	500	7
PCT	2.3	8.2	13.7	17.2	19.3	11.3	11.7	6.2	6.5	2.7	.8	.2	.0	.0	.0	.0	.0	.0	.0	100.5	

SEPTEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1855-1972

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	NO DUST SIG WEA
N	.0	3.4	.0	.0	.0	.0	.0	3.4	.0	.0	.0	.0	.0	.0	96.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	4.2	.0	2.1	.0	.0	.0	93.7
E	.0	1.6	.0	.0	.0	.0	.0	1.6	.0	1.6	.8	.0	.0	.0	96.0
SE	.2	.1	.5	.0	.0	.0	.0	.9	1.1	.1	.0	.0	.0	.0	97.9
S	2.1	2.5	.0	.0	.0	.0	.0	4.0	1.3	1.0	.0	.0	.0	.0	93.1
SW	3.5	7.6	2.8	.0	.0	.0	.2	13.7	4.1	1.2	.0	.0	.4	.0	80.9
W	2.7	10.9	.3	.0	.0	.0	.3	14.2	5.6	.4	1.0	.0	.0	.0	78.8
NW	2.8	10.9	.0	.0	.0	.0	.0	13.7	5.3	.0	1.2	.0	.0	.0	79.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	2.0	5.2	.8	.0	.0	.0	.1	8.1	2.9	.7	.4	.0	.1	.0	87.9
TOT OBS:	1126														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	NO DUST SIG WEA
00003	1.4	6.4	.7	.0	.0	.0	.3	8.4	3.4	.3	.7	.0	.3	.0	86.8
06009	2.0	3.2	.4	.0	.0	.0	.0	5.6	2.0	.0	.0	.0	.0	.0	92.4
12015	3.0	5.1	.9	.0	.0	.0	.0	9.0	3.0	2.1	.3	.0	.3	.0	85.7
18021	1.8	5.7	1.1	.0	.0	.0	.0	8.6	2.9	.7	.4	.0	.0	.0	87.5
TOT PCT	2.1	5.2	.8	.0	.0	.0	.1	8.0	2.8	.9	.3	.0	.2	.0	87.9
TOT OBS:	1162														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)								TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+						00	03	06	09	12	15	18	21
N	.1	1.2	.5	.1	.0	.0			1.8	8.9		1.5	1.6	3.9	1.7	.9	1.8	2.2	.9
NE	.2	1.8	.5	.1	.1	.0			2.5	8.5		3.5	3.1	2.8	3.0	1.0	2.1	2.1	3.3
E	.2	2.9	2.8	.2	.4	.0			6.2	11.8		8.6	6.8	7.9	2.7	4.1	3.6	6.3	6.7
SE	.5	6.0	9.3	1.3	.1	.0			17.1	12.9		19.6	19.0	19.4	12.7	14.5	10.8	22.8	15.3
S	.7	10.3	9.5	2.4	.2	.0			23.0	12.6		21.9	17.1	23.7	26.7	27.7	22.7	21.7	17.7
SW	.5	9.7	9.3	4.2	.5	.1			24.3	14.3		23.1	28.5	23.4	26.3	25.0	26.0	21.3	25.8
W	.5	6.2	6.0	2.8	.7	.2			16.4	15.1		15.6	16.3	12.6	15.7	17.7	22.9	16.7	20.3
NW	.2	2.9	2.7	1.0	.2	.0			7.0	13.8		5.4	12.2	6.0	10.7	6.5	8.0	5.7	7.3
VAR	.0	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.5	750	740	219	32	4	1825		1.5	.0		.8	1.6	.3	.7	2.5	2.1	2.0	3.0
TOT OBS	80								13.2			359	129	310	150	361	97	254	165
TOT PCT	4.4	41.1	40.5	12.0	1.8	.2			100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00 03	06 09	12 15	18 21
N	.7	1.1	.1	.0	.0		1.8	8.9	1.5	3.2	1.1	1.7
NE	1.3	.9	.2	.1	.0		2.5	8.5	3.4	2.9	1.3	2.6
E	1.3	3.3	1.6	.4	.0		6.2	11.8	8.1	6.2	4.0	6.4
SE	2.9	9.5	4.5	.2	.0		17.1	12.9	17.8	17.2	13.8	19.9
S	4.9	11.3	6.2	.7	.1		23.0	12.6	20.6	24.7	26.6	20.1
SW	3.8	11.9	6.4	2.1	.1		24.3	14.3	24.5	24.3	25.2	23.0
W	2.7	7.9	3.8	1.8	.2		16.4	15.1	15.8	13.6	18.8	17.6
NW	1.3	3.3	1.7	.5	.1		7.0	13.8	7.2	7.5	6.8	6.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.5						1.5	.0	1.0	.4	2.4	2.4
TOT OBS	371	898	448	99	9	1825		13.2	488	460	458	419
TOT PCT	20.3	49.2	24.5	5.4	.5		100.0		100.0	100.0	100.0	100.0



SEPTEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1855-1972

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	1.0	3.5	44.7	36.9	11.7	1.6	.0	13.1	100.0	488	
06009	.4	3.0	39.6	42.4	12.6	2.0	.0	13.5	100.0	460	
12015	2.4	2.8	43.0	39.1	11.6	1.1	.0	12.5	100.0	458	
18021	2.4	1.9	36.5	44.4	12.2	2.4	.2	13.6	100.0	419	
TOT	28	52	750	740	219	32	4	13.2		1825	
PCT	1.5	2.8	41.1	40.5	12.0	1.8	.2	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	.5	.2	1.0	.3		5.0
NE	1.0	.0	1.1	.1		3.7
E	4.5	.8	.8	.3		2.0
SE	8.5	4.6	5.4	1.6		3.3
S	8.0	6.5	10.0	2.0		4.2
SW	3.5	4.8	9.3	3.3		5.0
W	2.7	3.4	6.0	1.9		4.6
NW	1.4	.6	2.3	1.8		5.2
VAR	.0	.0	.0	.0		.0
CALM	.6	.3	.1	.0		2.0
TOT OBS	237	163	277	93	770	4.1
TOT PCT	30.8	21.2	36.0	12.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.6	.3	.2	.1	.0	.0	.9	
NE	.0	.0	.0	.3	.3	.1	.1	.1	.0	.0	1.4	
E	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	5.9	
SE	.0	.0	.0	.3	2.3	2.0	1.2	.3	.0	.0	14.0	
S	.0	.0	.0	.5	4.0	2.5	1.9	.6	.0	.4	17.4	
SW	.0	.0	.5	1.6	3.7	2.7	1.3	.5	.3	.0	10.5	
W	.0	.0	.1	.8	3.1	1.6	1.2	.2	.0	.0	7.2	
NW	.1	.0	.0	.3	1.8	.6	.3	.0	.0	.0	3.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	
TOT OBS	1	0	4	28	121	76	50	13	2	3	472	770
TOT PCT	.1	.0	.5	3.6	15.7	9.9	6.5	1.7	.3	.4	61.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>A500	.6	.6	.6	.6	.6	.6	.6	.6
>A000	2.2	2.3	2.3	2.3	2.3	2.3	2.3	2.3
>A500	6.0	8.7	8.7	8.7	8.7	8.7	8.7	8.7
>A000	17.1	18.5	18.7	18.7	18.7	18.7	18.7	18.7
>A1000	30.3	33.8	34.1	34.3	34.3	34.3	34.3	34.3
>A000	33.4	37.2	37.7	37.8	37.8	37.8	37.8	37.8
>A00	33.6	37.7	38.2	38.3	38.3	38.3	38.3	38.3
>A150	33.6	37.7	38.2	38.3	38.3	38.3	38.3	38.3
>A0	33.8	37.8	38.3	38.5	38.5	38.5	38.5	38.5
TOTAL	265	297	301	302	302	302	302	302

TOTAL NUMBER OF OBS: 785

PCT FREQ NH <5/8: 61.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
	14.0	11.0	12.0	12.8	10.1	8.8	10.1	10.8	10.2	.0	888

SEPTEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1855-1972

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.3	
1<2	PCP	.0	.0	.0	*	.1	*	.3	.1	.0	.0	.6	
	NO PCP	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	TOT %	.0	.0	.0	*	.1	.1	.3	.1	.0	.0	.7	
2<5	PCP	.0	.0	.0	.0	*	.2	.2	.0	.0	.0	.4	
	NO PCP	.0	.1	.0	.2	.0	.1	*	.2	.0	.0	.6	
	TOT %	.0	.1	.0	.2	*	.3	.2	.2	.0	.0	1.0	
5<10	PCP	.0	.0	.1	.1	.4	2.5	1.2	.7	.0	.0	4.9	
	NO PCP	.3	.5	.7	2.8	3.7	6.5	4.5	2.4	.0	.2	21.5	
	TOT %	.3	.5	.8	2.9	4.1	9.0	5.6	3.0	.0	.2	26.4	
10+	PCP	*	.0	.0	*	.5	.6	.8	.2	.0	.0	2.1	
	NO PCP	1.0	1.5	4.8	14.8	19.1	14.1	10.0	3.5	.0	.8	69.5	
	TOT %	1.0	1.5	4.8	14.8	19.6	14.6	10.7	3.8	.0	.8	71.6	
TOT OBS													1125
TOT PCT		1.3	2.1	5.6	17.9	23.8	24.1	17.0	7.1	.0	1.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	*	*	.1	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	*	.1	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	*	*	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.0	.0	.1	.1	.1	.0	.1	.3	
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.3	
	11-21	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.1	.1	.2	.1	.0	.0	.4	
	TOT %	.0	.0	.0	.2	.1	.3	.3	.1	.0	.0	.8	
2<5	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.1	.0	.1	*	.1	.2	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.1	.2	.1	.0	.0	.4	
	TOT %	.0	.1	.0	.1	*	.2	.3	.2	.0	.0	1.0	
5<10	0-3	*	*	.1	.1	.2	.1	*	.0	.0	.1	.7	
	4-10	.2	.6	.6	1.8	2.5	3.6	2.7	1.2	.0	.0	13.3	
	11-21	.1	.1	.6	1.7	1.8	3.6	1.6	1.6	.0	.0	11.3	
	22+	*	.0	.3	.3	.6	2.2	1.5	.4	.0	.0	4.9	
	TOT %	.4	.8	1.3	4.0	5.1	9.5	5.8	3.2	.0	.1	30.2	
10+	0-3	.1	.1	*	.2	.6	.3	.4	.1	.0	1.0	2.8	
	4-10	.6	.9	2.0	4.2	8.1	6.0	3.4	1.8	.0	.0	27.0	
	11-21	.3	.2	1.9	8.0	8.3	6.1	4.5	1.2	.0	.0	30.5	
	22+	.0	.1	.3	1.0	1.7	1.8	1.8	.4	.0	.0	7.1	
	TOT %	1.0	1.3	4.2	13.4	18.7	14.2	10.2	3.6	.0	1.0	67.5	
TOT OBS													1542
TOT PCT		1.4	2.2	5.5	17.6	23.9	24.3	10.7	7.1	.0	1.2	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1855-1972

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.5	2.9	17.4	10.1	8.7	.5	.0	.0	40.1	59.9	207
06009	.0	.0	.5	3.3	15.2	7.1	8.1	2.4	.5	.5	37.4	62.6	211
12015	.0	.0	.5	4.2	12.5	8.3	3.7	1.9	.5	.5	31.9	68.1	216
18021	.5	.0	.5	3.5	13.4	12.4	3.5	1.5	.0	.5	35.6	64.4	202
TOT PCT	1 .1	0 .0	4 .5	29 3.5	122 14.6	79 9.4	50 6.0	13 1.6	2 .2	3 .4	303 36.2	533 63.8	836 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.7	1.9	.7	30.7	66.0	423
06009	.3	.3	.5	.5	28.8	69.6	372
12015	.0	.2	1.2	1.9	32.9	63.8	428
18021	.3	.0	.3	.5	30.1	68.8	372
TOT PCT	2 .1	5 .3	16 1.0	15 .9	490 30.7	1067 66.9	1595 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.5	4.1	38.1	57.9	197
06009	.0	.5	4.5	35.0	60.5	200
12015	.0	.5	5.6	28.8	65.7	198
18021	.5	1.1	4.7	33.2	62.1	190
TOT PCT	1 .1	5 .6	37 4.7	265 33.8	483 61.5	785 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.1	.0	.0	.0	.0	.0	.0	1	.1
75/79	.0	.0	.0	.1	.0	.1	.0	.0	2	.2
70/74	.0	.0	.2	.6	.7	.8	.2	.1	29	2.4
65/69	.0	.0	.5	3.0	5.3	7.1	5.8	1.8	278	23.5
60/64	.0	.0	.8	5.1	17.7	17.6	9.6	3.5	643	54.3
55/59	.0	.0	.1	2.3	5.5	7.0	3.6	.6	226	19.1
50/54	.0	.0	.0	.1	.0	.0	.1	.2	4	.3
45/49	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
TOTAL PCT	0 .0	1 .1	19 1.6	131 11.1	345 29.1	385 32.5	229 19.3	74 6.3	1184	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.1	.0	.0	.1	.0	.0	.0	.0	.0
.1	.5	.4	.1	.6	.0	.3	.2	.0	.2
.7	.7	1.8	3.5	5.1	4.1	4.2	3.0	.0	.3
.5	.7	2.3	10.2	12.9	15.2	9.0	3.3	.0	.3
.0	.2	1.3	3.5	5.2	5.7	2.5	.4	.0	.2
.0	.0	.0	.3	.0	.1	.0	.0	.0	.0
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
1.4	2.2	5.8	17.6	24.0	25.1	16.0	6.9	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	80	72	59	62	57	55	48	62.5	481
06009	75	73	70	64	59	57	56	64.2	444
12015	73	70	67	62	58	55	54	62.2	475
18021	70	68	66	61	56	54	52	61.3	430
TOT	80	71	68	62	57	55	48	62.6	1830

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	13.2	26.7	33.7	20.6	5.8	72	326
06009	.0	20.6	33.0	29.1	12.4	5.0	59	282
12015	.0	9.1	25.9	34.8	23.2	7.0	74	328
18021	.0	8.0	28.5	31.6	24.3	7.6	74	288
TOT	0	154	347	397	248	78	72	1224

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1855-1972

# SEPTEMBER

AREA 0016 PERTH NW  
29.95 112.8E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	TOT	N FOG	WD FOG
9/10	.0	.0	.0	.1	.1	.1	3	.0	.3
7/8	.0	.0	.0	.2	.0	.0	2	.0	.2
6	.0	.0	.0	.0	.1	.0	1	.0	.1
5	.0	.0	.0	.4	.2	.1	7	.0	.8
4	.0	.1	.4	.3	.2	.0	10	.0	1.1
3	.0	.2	.4	.4	.3	.0	13	.0	1.4
2	.0	.0	.4	1.6	1.0	.0	28	.0	3.1
1	.0	.2	1.4	3.6	.3	.0	51	.1	5.5
0	.0	.9	3.4	5.0	.3	.0	88	.0	9.6
-1	.0	2.2	5.5	3.5	.0	.0	102	.0	11.2
-2	.1	2.3	8.4	3.2	.0	.0	128	.0	14.0
-3	.2	2.6	6.0	1.0	.1	.0	91	.0	10.0
-4	.3	3.4	6.3	.7	.0	.0	97	.0	10.6
-5	.4	4.5	5.6	.4	.0	.0	100	.0	11.0
-6	.2	4.6	1.9	.2	.0	.0	63	.0	6.9
-7/-8	.5	6.8	1.5	.1	.0	.0	82	.1	8.9
-9/-10	.4	2.6	.2	.0	.0	.0	30	.0	3.3
-11/-13	.5	.7	.5	.0	.0	.0	16	.0	1.8
TOTAL	26		384		25		912	2	910
PCT	2.9	31.1	42.1	20.9	2.7	.2	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3
1-2	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.2	.2	.0	.0	.0	.4	.0	.2	.2	.0	.0	.0	.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.4	.0	.0	.0	.6	.0	.3	.2	.0	.0	.0	.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.0	.0	.0	.0	.7	.0	1.0	.0	.0	.0	.0	1.0
1-2	.0	1.3	.5	.0	.0	.0	1.8	.2	3.9	.7	.0	.0	.0	4.8
3-4	.0	1.1	.5	.0	.0	.0	1.6	.0	1.9	5.9	.0	.0	.0	7.8
5-6	.0	.0	1.4	.0	.0	.0	1.4	.0	.2	3.9	.4	.0	.0	4.5
7	.0	.0	.2	.0	.0	.0	.2	.0	.1	1.9	.5	.0	.0	2.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.1	.3	.2	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.1	.3	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.1	2.6	.0	.2	.0	5.9	.2	7.1	13.2	1.2	.3	.0	21.9

PERIOD: (OVER-ALL) 1963-1972

SEPTEMBER

AREA 0018 PERTH NW  
29.95 112.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	1.3	.0	.0	.0	.0	1.7	.1	.7	.0	.0	.0	.0	.7
1-2	.0	4.1	.7	.0	.0	.0	4.7	.0	4.1	1.1	.0	.0	.0	5.2
3-4	.0	2.2	6.5	.4	.0	.0	9.1	.0	1.9	3.8	.1	.0	.0	5.7
5-6	.0	.4	4.8	1.1	.0	.0	6.3	.0	.3	3.5	.5	.0	.0	4.2
7	.0	.2	1.9	1.1	.0	.0	3.3	.0	.0	1.8	.8	.0	.0	2.6
8-9	.0	.4	.8	.0	.0	.0	1.2	.0	.3	.1	.2	.0	.0	.7
10-11	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.5	.0	.0	.5
13-16	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	8.6	14.8	3.0	.0	.0	26.6	.1	7.3	10.2	2.3	.0	.0	19.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
1-2	.0	3.6	2.7	.0	.0	.0	6.3	.0	1.2	1.4	.0	.0	.0	2.6	
3-4	.0	1.9	4.9	.0	.0	.0	6.8	.0	.5	1.5	.2	.0	.0	2.3	
5-6	.0	.0	1.9	.5	.0	.0	2.4	.0	.0	.1	.2	.0	.0	.3	
7	.0	.0	.4	.2	.0	.0	.6	.0	.0	.2	.0	.0	.0	.2	
8-9	.0	.2	.2	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.2	.2	.0	.4	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.2	.5	.2	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	5.7	10.2	.9	.5	.5	17.7	.0	2.0	3.2	.5	.0	.0	5.6	99.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.9	4.7	.0	.0	.0	.0	6.6	
1-2	.5	18.0	7.0	.0	.0	.0	25.5	
3-4	.0	10.1	23.0	.7	.0	.0	33.7	
5-6	.0	.9	15.2	2.6	.0	.0	18.7	
7	.0	.2	6.3	2.6	.0	.0	9.1	
8-9	.0	.9	1.4	.5	.0	.0	2.8	
10-11	.0	.0	.7	.5	.2	.0	1.4	
12	.0	.0	.0	.7	.0	.0	.7	
13-16	.0	.0	.0	.2	.5	.0	.7	
17-19	.0	.0	.0	.0	.2	.2	.5	
20-22	.0	.0	.0	.0	.0	.2	.2	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.3	34.9	53.6	7.7	.9	.5	100.0	427

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.5	4.1	6.7	5.3	.8	1.7	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	127
6-7	.0	.6	2.9	3.8	6.6	2.4	2.1	.2	.2	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	125
8-9	.0	.0	.9	3.2	8.5	3.7	2.3	1.2	2.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	145
10-11	.0	.2	.6	2.1	2.0	2.4	2.9	2.0	1.7	.3	.3	.0	.2	.0	.0	.0	.0	.0	.0	.0	96
12-13	.0	.0	.6	.9	1.2	.5	.9	1.4	2.4	.6	.6	.0	.5	.0	.0	.0	.0	.0	.0	.0	63
13-14	.0	.0	.0	.2	1.2	.2	.5	.9	1.2	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	31
INDEF	1.1	1.4	2.6	.9	1.1	1.2	1.2	.0	.5	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	67
TOTAL	10	41	94	108	140	79	67	37	52	10	11	1	5	0	0	0	0	0	0	0	655
PCT	1.5	6.3	14.4	16.5	21.4	12.1	10.2	5.6	7.9	1.5	1.7	.2	.8	.0	.0	.0	.0	.0	.0	.0	100.0



## OCTOBER

PERIOD: (PRIMARY) 1919-1969  
(OVER-ALL) 1854-1969

AREA 0018 PERTH NW  
29.95 112.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATIUN TYPE										OTHER WEATHER PHENOMENA					
WND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	7.1	.0	.0	.0	.0	.0	7.1	8.2	.0	.0	.0	.0	.0	84.7
NE	4.7	.0	.0	.0	.0	.0	.0	4.7	.0	.0	9.3	.0	.0	.0	86.0
E	.0	.0	1.0	.0	.0	.0	.0	1.0	.0	2.0	2.0	.0	.0	.0	94.9
SE	.5	.0	.5	.0	.0	.0	.0	.9	.5	.2	.5	.0	1.3	.0	96.6
S	.3	.8	1.1	.0	.0	.0	.0	2.2	.4	.8	.3	.0	1.1	.0	95.3
SW	1.7	2.8	.7	.0	.0	.0	.0	5.2	.9	1.6	.7	.3	.0	.0	91.6
W	1.1	9.3	.0	.0	.0	.0	.0	10.4	5.4	.3	.6	.0	.0	.0	83.3
NW	4.0	7.4	1.3	.0	.0	.0	.0	12.6	7.1	1.3	.0	.0	1.3	.0	77.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.0	2.7	.7	.0	.0	.0	.0	4.5	1.7	.9	.6	.1	.6	.0	91.7
TOT OBS:	1246														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NIG SIG WEA
00603	1.3	2.9	1.3	.0	.0	.0	.0	5.4	1.6	.0	.6	.0	1.3	.0	.0	91.1
06009	1.3	2.6	.3	.0	.0	.0	.0	4.2	1.6	.6	1.6	.0	.6	.0	.0	91.7
12015	1.2	2.6	.6	.0	.0	.0	.0	4.4	2.4	.9	.3	.0	.3	.0	.0	91.8
18021	.3	2.7	.7	.0	.0	.0	.0	3.7	1.0	2.0	.0	.3	.3	.0	.0	92.6
TOT PCT	1.0	2.7	.7	.0	.0	.0	.0	4.4	1.7	.9	.6	.1	.6	.0	.0	91.8
TOT OBS:	1261															

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	.8	.8	.0	.0	.0		1.8	11.2		1.4	2.5	1.9	1.6	2.2	.9	1.7	1.1
NE	.0	1.0	.5	.0	.0	.0		1.5	9.4		1.4	2.8	2.1	1.9	1.0	.0	1.5	1.1
E	.0	1.3	1.7	.7	.1	.0		3.8	15.4		8.0	4.8	5.1	1.9	1.0	.0	2.3	3.4
SE	.2	6.1	9.9	2.2	.0	.0		18.5	13.9		22.0	14.4	19.8	16.8	14.1	16.2	22.4	17.2
S	.6	10.4	16.4	7.9	.2	.0		30.6	13.4		26.9	23.4	28.9	29.9	39.7	34.5	28.7	29.5
SW	.6	9.2	10.7	2.6	.7	.0		23.7	13.5		20.5	26.6	21.2	27.5	24.7	29.1	24.7	23.7
W	.5	4.8	5.6	1.8	.5	.0		13.3	14.1		13.4	17.2	13.2	14.3	12.2	10.4	12.6	14.4
NW	.4	2.1	2.4	1.3	.2	.0		6.3	14.5		5.4	7.6	6.8	6.3	5.1	8.1	5.8	8.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.6	.0	.0	.0	.0	.0		.6	.0		1.0	.7	1.0	.0	.0	.9	.3	.6
TOT OBS	67	755	1020	247	36	0	2125		13.6		415	141	401	182	407	111	294	174
TOT PCT	3.2	35.5	48.0	11.6	1.7	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.5	.7	.5	.0	.0		1.8	11.2	1.7	1.8	1.9	1.5
NE	.6	.8	.1	.0	.0		1.5	9.4	1.8	2.1	.8	1.4
E	.4	2.0	1.1	.4	.0		3.8	15.4	7.1	4.1	.8	2.7
SE	1.5	10.9	5.6	.3	.0		18.5	13.9	20.1	16.8	14.5	20.5
S	4.0	17.0	8.8	.8	.0		30.6	13.4	26.0	29.2	38.6	29.0
SW	4.4	12.2	5.2	1.4	.2		23.7	13.5	22.0	23.2	25.6	24.4
W	2.0	7.2	3.1	1.0	.1		13.3	14.1	14.4	13.5	11.8	13.2
NW	1.3	2.7	1.6	.7	.0		6.3	14.5	5.9	6.6	5.7	6.9
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	.6	.0	.0	.0	.0		.6	.0	.9	.7	.2	.4
TOT OBS	323	1143	554	98	7	2125		13.6	556	583	518	468
TOT PCT	15.2	53.8	26.1	4.6	.3		100.0		100.0	100.0	100.0	100.0

## OCTOBER

PERIOD: (PRIMARY) 1919-1969  
(OVER-ALL) 1854-1969

AREA 0018 PERTH NW  
29.95 112.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	.9	2.3	37.6	46.4	11.2	1.6	.0	13.3	100.0	556
0600	.7	2.7	33.4	49.6	12.2	1.4	.0	13.8	100.0	583
1200	.2	2.7	34.7	47.1	13.5	1.7	.0	13.7	100.0	518
1800	.4	2.6	36.5	48.9	9.4	2.1	.0	13.4	100.0	468
TOT	12	95	755	1020	247	36	0	13.6		2125
PCT	.6	2.6	35.5	48.0	11.6	1.7	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.7	.4	.6	.0	3.4	
NE	.7	.0	.7	.2	4.1	
E	2.2	1.0	.9	.4	3.1	
SE	10.0	4.2	5.7	2.0	3.2	
S	9.7	7.0	13.3	2.5	4.1	
SW	4.9	3.6	10.4	2.3	4.6	
W	1.6	1.7	5.5	1.6	5.1	
NW	1.1	.9	3.0	.7	4.9	
VAR	.0	.0	.0	.0	2.0	
CALM	.3	.0	.2	.0	2.8	
TOT OBS	272	163	351	85	871	
TOT PCT	31.2	18.7	40.3	9.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT; NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	1.4	
.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	1.2	
.0	.0	.0	.0	.3	.2	.1	.0	.0	.0	3.8	
.0	.0	.1	.7	2.2	1.8	.9	.5	.1	.0	15.4	
.0	.0	.1	2.0	4.3	4.3	2.1	.5	.1	.0	19.2	
.0	.0	.2	1.1	2.8	2.6	2.3	.2	.1	.0	12.0	
.0	.0	.2	.7	2.2	1.7	1.0	.1	.1	.0	4.4	
.0	.0	.0	.8	2.2	1.4	.2	.5	.0	.0	2.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	
.0	.0	.5	47	118	94	60	12	3	1	531	871
.0	.0	.6	5.4	13.5	10.8	6.9	1.4	.3	.1	61.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >5GYD	= OR >0
= OR >6500	.5	.5	.5	.5	.5	.5	.5	.5
= OR >5000	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
= OR >3500	7.9	8.3	8.6	8.7	8.7	8.7	8.7	8.7
= OR >2000	17.8	18.8	19.3	19.4	19.4	19.4	19.4	19.4
= OR >1000	29.9	32.2	32.8	32.9	32.9	32.9	32.9	32.9
= OR >600	33.7	36.8	38.1	38.2	38.2	38.2	38.2	38.2
= OR >300	34.1	37.3	38.7	38.8	38.8	38.8	38.8	38.8
= OR >150	34.1	37.3	38.7	38.8	38.8	38.8	38.8	38.8
= OR >0	34.1	37.3	38.7	38.8	38.8	38.8	38.8	38.8
TOTAL	299	327	339	340	340	340	340	340

TOTAL NUMBER OF OBS: 676

PCT FREQ NH &lt;5/8: 61.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
14.4	13.2	11.6	11.3	10.7	10.2	9.1	11.3	9.1	.0	963

PERIOD: (PRIMARY) 1919-1969  
(OVER-ALL) 1854-1969

OCTOBER

AREA 0018 PERTH NW  
29.9S 112.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1	
	NO PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.0	.0	*	*	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.2	.2	.1	.0	.0	.0	.4	
	TOT %	.0	.0	.0	.0	.2	.2	.1	.0	.0	.0	.4	
1<2	PCP	.0	.0	.0	.0	.0	.0	.1	*	.0	.0	.1	
	NO PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.1	.1	.0	.1	*	.0	.0	.2	
2<5	PCP	.0	.0	.0	.1	.1	.1	.2	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.1	.1	.2	.2	.0	.0	.6	
	TOT %	.0	.0	.0	.1	.2	.2	.4	.2	.0	.0	1.0	
5<10	PCP	.1	.1	*	*	.3	.9	1.0	.5	.0	.0	3.0	
	NO PCP	.3	.3	.9	2.4	7.6	7.9	5.1	1.6	.0	.1	26.0	
	TOT %	.4	.4	1.0	2.4	7.9	8.7	6.1	2.1	.0	.1	29.0	
10+	PCP	.0	.0	.0	*	.3	.3	.1	.2	.0	.0	1.0	
	NO PCP	1.3	1.4	3.0	14.5	22.6	15.2	6.4	3.4	.0	.4	68.2	
	TOT %	1.3	1.4	3.0	14.6	22.9	15.5	6.5	3.6	.0	.4	69.2	
TOT OBS													1245
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.1	.0	.0	*	*	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.0	*	*	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.1	.1	.1	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.1	.1	.1	.0	.0	.0	.3	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.1	.0	*	*	.0	.0	.2	
	11-21	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.3	.1	.1	*	.0	.0	.5	
2<5	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.1	*	.0	.0	.1	
	11-21	.0	.0	.0	.1	.0	.1	.1	.2	.0	.0	.4	
	22+	.0	.0	.0	*	.2	.1	.1	.0	.0	.0	.4	
	TOT %	.0	.0	.0	.1	.2	.1	.3	.2	.0	.0	1.0	
5<10	0-3	.0	.0	.0	.1	.1	.2	.1	.1	.0	.1	.7	
	4-10	.2	.3	.4	2.1	3.9	3.3	2.0	.7	.0	.0	12.8	
	11-21	.2	*	.6	1.5	4.7	3.8	2.8	.5	.0	.0	14.1	
	22+	.0	.0	.2	.2	.4	1.5	1.3	.8	.0	.0	4.8	
	TOT %	.4	.4	1.1	3.8	9.6	8.6	6.2	2.0	.0	.1	32.3	
10+	0-3	.1	.0	.0	.1	.2	.4	.1	.4	.0	.3	1.7	
	4-10	.7	.6	.7	4.2	7.3	5.9	2.7	1.1	.0	.0	23.3	
	11-21	.5	.4	1.0	8.2	12.3	6.9	2.8	1.3	.0	.0	33.4	
	22+	.0	.1	.8	1.8	2.0	1.3	.8	.4	.0	.0	7.2	
	TOT %	1.3	1.0	2.6	14.3	21.7	14.6	6.4	3.2	.0	.3	65.6	
TOT OBS													1716
TOT PCT													100.0

OCTOBER

PERIOD: (PRIMARY) 1919-1969  
(OVER-ALL) 1854-1969AREA 0018 PERTH NW  
29.95 112.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.8	7.2	16.5	12.7	8.5	2.1	.4	.0	48.3	51.7	236
06009	.0	.0	.4	2.7	11.6	8.1	5.4	1.6	.4	.4	30.6	69.4	258
12015	.0	.0	.5	5.9	10.0	10.5	5.9	.9	.5	.0	34.2	65.8	219
18021	.0	.0	.5	4.6	12.4	9.2	6.0	.5	.0	.0	33.2	66.8	217
TOT	0	0	5	47	118	94	60	12	3	1	340	590	930
PCT	.0	.0	.5	5.1	12.7	10.1	6.5	1.3	.3	.1	36.6	63.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.4	.9	1.1	32.6	65.0	448
06009	.2	.7	.2	.9	31.4	66.7	456
12015	.2	.2	.9	1.4	36.1	61.2	438
18021	.0	.0	.0	.5	30.6	68.9	392
TOT	2	6	9	17	567	1133	1734
PCT	.1	.3	.5	1.0	32.7	65.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.9	8.9	41.8	49.3	225
06009	.0	.4	4.5	28.1	67.4	242
12015	.0	.5	7.4	29.7	62.9	202
18021	.0	.5	5.8	29.0	65.2	207
TOT	0	5	58	282	536	876
PCT	.0	.6	6.6	32.2	61.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.1	.0	.0	.0	.0	1	.1
75/79	.0	.0	.0	.2	.1	.0	.2	.0	5	.4
70/74	.0	.0	.0	.3	1.5	1.9	.8	.2	62	4.8
65/69	.0	.0	.3	1.9	5.9	9.9	8.4	2.8	381	29.2
60/64	.0	.0	.5	4.4	15.6	19.8	12.1	1.8	708	54.3
55/59	.0	.0	.0	.8	2.5	4.5	3.0	.3	146	11.2
50/54	.0	.0	.0	.0	.0	.0	.1	.1	2	.2
TOTAL	0	0	11	100	333	472	320	69	1305	100.0
PCT	.0	.0	.8	7.7	25.5	36.2	24.5	5.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.1	.0	.0	.0	.0	.0	.0
.0	.1	.0	.1	.1	.0	.0	.1	.0	.0
.4	.2	.4	1.3	1.3	.2	.4	.5	.0	.2
.9	.9	1.7	6.9	8.3	4.6	3.7	2.0	.0	.2
.2	.3	1.5	9.3	17.8	15.4	7.4	2.3	.0	.2
.1	.0	.5	1.7	2.9	4.0	1.5	.4	.0	.0
.0	.0	.0	.0	*	.1	*	.0	.0	.0
1.5	1.4	4.2	19.4	30.4	24.3	13.0	5.3	.0	.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	77	73	70	64	58	55	53	63.6	537
06009	80	75	72	65	59	56	55	65.2	562
12015	77	70	68	63	58	57	55	62.9	515
18021	75	68	67	62	57	55	54	61.9	473
TOT	80	73	70	63	58	55	53	63.5	2087

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	6.5	26.9	34.0	26.6	5.9	74	338
06009	.0	14.0	35.0	32.1	16.0	2.9	70	349
12015	.0	5.4	20.8	40.5	26.3	6.9	75	331
18021	.0	7.4	18.6	38.2	30.1	5.7	76	296
TOT	0	111	337	474	322	70	74	1314

PERIOD: (PRIMARY) 1919-1969  
(OVER-ALL) 1854-1969

OCTOBER

TABLE 17

AREA 0018 PERTH NW  
29.95 112.6E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	TOT	H FOG	WD FOG
14/16	.0	.0	.0	.0	.0	.1	.0	1	.0	.1
11/13	.0	.0	.0	.0	.0	.0	.1	1	.0	.1
7/8	.0	.0	.0	.1	.3	.0	.2	6	.0	.6
6	.0	.0	.1	.1	.0	.4	.0	6	.0	.6
5	.0	.1	.1	.0	.2	.2	.0	6	.0	.6
4	.0	.1	.2	.3	.3	.2	.0	11	.0	1.1
3	.0	.2	.4	1.1	1.2	.1	.0	30	.1	2.8
2	.0	.1	.2	1.6	1.6	.1	.0	36	.1	3.4
1	.0	.5	1.3	4.4	1.1	.0	.0	74	.1	7.2
0	.0	.2	3.7	5.5	.0	.2	.0	107	.0	10.5
-1	.0	.3	5.5	5.3	.1	.0	.0	114	.2	11.0
-2	.1	1.5	8.3	4.1	.2	.1	.0	146	.1	14.2
-3	.0	3.4	6.3	2.3	.0	.0	.0	142	.0	13.9
-4	.0	3.8	7.2	1.3	.0	.0	.0	125	.1	12.2
-5	.2	2.8	5.1	.1	.0	.0	.0	84	.0	8.3
-6	.3	2.6	2.0	.2	.0	.0	.0	51	.0	5.0
-7/-8	.7	2.9	1.5	.0	.0	.0	.0	52	.0	5.1
-9/-10	.3	1.1	.6	.1	.0	.0	.0	21	.0	2.1
-11/-13	.2	.3	.0	.0	.0	.0	.0	5	.0	.5
TOTAL	18	203	452	269	59	14	3	1018	7	1011
PCT	1.8	19.9	44.4	26.4	5.8	1.4	.3	100.0	.7	99.3

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.0	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.2
1-2	.0	.2	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.3
3-4	.0	.5	.5	.0	.0	.0	.9	.0	.2	.5	.0	.0	.0	.7
5-6	.0	.2	.4	.0	.0	.0	.6	.0	.3	.5	.0	.0	.0	.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	.9	.9	.0	.0	.0	2.0	.0	.8	1.2	.2	.0	.0	2.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.1	.1	.0	.0	.0	.0	.2
1-2	.0	.9	.0	.0	.0	.0	.9	.0	1.9	1.6	.0	.0	.0	3.5
3-4	.0	.0	.6	.0	.0	.0	.6	.0	2.0	5.5	.0	.0	.0	7.5
5-6	.0	.0	1.6	.4	.0	.0	2.0	.0	.2	1.8	.6	.0	.0	2.6
7	.0	.0	.8	.9	.2	.0	1.9	.0	.0	3.3	.6	.0	.0	3.9
8-9	.0	.0	.0	.2	.0	.0	.2	.0	.0	.4	.2	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	.0	.0	1.3
12	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.2	.0	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.2	3.1	1.9	.5	.0	6.7	.1	4.3	12.5	3.3	.2	.0	20.4



PERIOD: (OVER-ALL) 1963-1969

OCTOBER

AREA 0018 PERTH NW  
29.95 112.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.2	.9	.0	.0	.0	.0		1.1	.2	1.5	.5	.0	.0	.0		2.2
1-2	.0	3.6	3.8	.0	.0	.0		7.4	.0	4.7	1.2	.0	.0	.0		5.9
3-4	.0	2.0	5.9	.0	.0	.0		7.9	.0	2.0	5.6	.3	.0	.0		7.9
5-6	.0	.2	5.1	.6	.0	.0		5.9	.0	.2	2.6	.5	.0	.0		3.4
7	.0	.2	2.6	1.3	.0	.0		4.1	.0	.0	.9	.5	.0	.0		1.4
8-9	.0	.0	1.0	.0	.0	.0		1.0	.0	.0	.2	.0	.7	.0		.9
10-11	.0	.0	.0	1.0	.0	.0		1.0	.0	.0	.2	.3	.0	.0		.5
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.4	.0	.0		.4	.0	.0	.2	.4	.0	.0		.6
17-19	.0	.0	.0	.2	.0	.0		.2	.0	.0	.0	.1	.2	.0		.3
20-22	.0	.0	.0	.0	.2	.0		.2	.0	.0	.0	.0	.1	.0		.1
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.2	7.1	18.4	3.4	.2	.0		29.2	.2	8.5	11.5	2.0	1.0	.0		23.2

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.4	.0	.0	.0	.0		.4	.2	.0	.0	.0	.0	.0		.8	
1-2	.2	1.2	.8	.0	.0	.0		2.2	.2	.9	1.1	.0	.0	.0		.8	
3-4	.0	.9	1.6	.4	.0	.0		2.9	.0	.2	1.6	.0	.0	.0		1.8	
5-6	.0	.2	1.4	.5	.0	.0		2.1	.0	.0	1.3	.0	.0	.0		1.3	
7	.0	.0	.6	.6	.0	.0		1.2	.0	.0	.2	.1	.0	.0		.3	
8-9	.0	.0	.0	.2	.2	.0		.5	.0	.0	.2	.2	.0	.0		.5	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.2	.2	.0	.0		.5	
12	.0	.0	.2	.2	.0	.0		.5	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.2	.0	.0		.2	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.2	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.2	2.6	4.6	1.9	.2	.0		9.6	.5	1.3	3.7	.8	.2	.0		6.4	99.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	1.2	4.0	.5	.0	.0	.0	5.6	
1-2	.5	13.1	7.7	.0	.0	.0	21.3	
3-4	.0	7.9	21.7	.7	.0	.0	30.4	
5-6	.0	1.4	14.7	2.6	.0	.0	18.7	
7	.0	.2	8.4	.0	.2	.0	12.9	
8-9	.0	.0	1.9	.9	.9	.0	3.7	
10-11	.0	.0	.5	3.0	.0	.0	3.5	
12	.0	.0	.2	.7	.0	.0	.9	
13-16	.0	.0	.2	1.2	.5	.0	1.9	
17-19	.0	.0	.0	.5	.2	.0	.7	
20-22	.0	.0	.0	.0	.5	.0	.5	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.6	26.6	55.8	13.6	2.3	.0	100.0	428

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.7	4.7	7.0	4.3	1.7	.9	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	141
6-7	.0	.7	4.9	7.4	4.0	2.7	1.4	.1	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	155
8-9	.0	.1	1.9	6.4	7.7	4.9	3.1	1.1	1.7	.6	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	198
10-11	.0	.1	.6	1.9	2.3	2.4	2.7	1.3	1.7	.3	.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	98
12-13	.0	.0	.4	1.3	.6	.6	.9	.9	1.1	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	42
13-14	.0	.0	.0	.1	.3	.3	.9	.3	.7	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19
INDET	.4	.3	1.0	1.7	1.7	.6	.4	.3	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	47
TOTAL	8	42	110	162	128	86	71	29	43	9	7	3	2	0	0	0	0	0	0	0	700
PCT	1.1	6.0	15.7	23.1	18.3	12.3	10.1	4.1	6.1	1.3	1.0	.4	.3	.0	.0	.0	.0	.0	.0	.0	100.0

## NOVEMBER

PERIOD: (PRIMARY) 1921-1972  
(OVER-ALL) 1857-1972

AREA 0018 PERTH NW  
29.9S 112.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	6.6	.0	3.3	.0	.0	.0	90.2
NE	13.2	.0	.0	.0	.0	.0	.0	13.2	13.2	2.6	.0	.0	.0	.0	71.1
E	16.8	.0	.0	.0	.0	.0	.0	16.8	2.2	8.8	.0	.0	2.9	.0	69.3
SE	1.1	1.3	.0	.0	.0	.0	.0	2.4	.0	2.0	1.3	.0	.3	.0	94.7
S	.4	1.1	.5	.0	.0	.0	.0	1.9	.8	1.2	.8	.0	.8	.0	94.6
SW	.9	3.5	.4	.0	.0	.0	.0	4.9	.7	.6	.5	.0	.5	.0	93.1
W	.9	10.1	.0	.0	.0	.0	.0	11.0	1.5	2.6	1.5	.0	.0	.0	84.1
NW	2.3	2.3	.0	.0	.0	.0	.0	4.7	2.3	.0	3.5	.0	.0	.0	89.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.4	2.6	.3	.0	.0	.0	.0	4.3	1.0	1.6	1.0	.0	.6	.0	91.9
TOT OBS:	1078														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00603	.4	2.6	.0	.0	.0	.0	.0	2.9	2.2	.0	.4	.0	.7	.0	93.8
06009	1.7	1.3	.4	.0	.0	.0	.0	3.5	1.3	.4	2.2	.0	.9	.0	92.2
12015	1.7	3.0	.0	.0	.0	.0	.0	4.6	.3	2.0	1.7	.0	.3	.0	91.7
18021	2.1	3.2	.7	.0	.0	.0	.0	6.0	.4	3.5	.0	.0	.4	.0	90.1
TOT PCT	1.5	2.6	.3	.0	.0	.0	.0	4.3	1.0	1.6	1.0	.0	.6	.0	91.9
TOT OBS:	1087														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.1	.2	.6	.1	.0	.0		1.0	13.7		1.5	1.1	1.4	.9	.3	.0	.0	1.8
NE	.1	.4	.2	.1	.0	.0		.8	11.2		1.9	1.1	.8	.0	.1	.0	1.2	.3
E	.1	1.4	1.4	.1	.1	.0		3.1	12.3		4.4	8.6	2.9	.6	.4	5.2	3.9	3.0
SE	.1	4.5	10.9	3.9	.4	.0		19.7	16.2		23.5	24.7	22.2	16.0	14.2	15.5	19.2	20.9
S	.6	10.4	20.2	7.1	.2	.0		38.6	15.2		36.2	36.6	37.0	42.5	43.8	38.3	37.3	35.7
SW	.5	9.7	9.9	1.9	.1	.0		22.2	12.5		19.6	17.2	22.2	22.0	24.2	21.9	24.6	22.8
W	.3	4.5	5.0	.8	.1	.0		10.6	12.6		9.2	7.0	9.3	13.3	12.0	14.3	10.1	11.5
NW	.1	1.5	1.7	.2	.0	.0		3.6	12.5		3.2	2.7	4.0	4.8	3.5	4.8	2.8	3.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.4							.4	.0		.5	1.1	.3	.0	.5	.0	.0	.5
TOT OBS	43	609	929	267	16	0	1864		14.2		372	93	327	166	361	105	271	169
TOT PCT	2.3	32.7	49.8	14.3	.9	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.2	.3	.5	*	.0		1.0	13.7	1.5	1.2	.2	1.3	
NE	.2	.4	.1	.1	.0		.8	11.2	1.7	.5	.1	.9	
E	.6	1.7	.7	.1	.0		3.1	12.3	5.2	2.1	1.5	3.5	
SE	.9	9.4	8.3	1.1	.1		19.7	16.2	23.7	20.1	15.3	19.8	
S	3.6	18.2	14.8	2.1	*		38.6	15.2	36.3	38.8	42.5	36.6	
SW	3.2	13.7	4.4	.9	.0		22.2	12.5	19.1	12.1	23.7	23.9	
W	1.6	6.1	2.5	.4	.0		10.6	12.6	8.8	10.6	12.5	10.7	
NW	.4	2.2	.9	*	.0		3.6	12.5	3.1	4.3	3.8	3.1	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	.4						.4	.0	.6	.2	.4	.2	
TOT OBS	206	971	599	86	2	1864		14.2	455	493	466	440	
TOT PCT	11.1	52.1	32.1	4.6	.1		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1921-1972  
(OVER-ALL) 1857-1972

NOVEMBER

AREA 0018 PERTH NW  
29.95 112.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	.6	2.4	34.4	49.9	12.3	.4	.0	13.7	100.0	465
06009	.2	1.8	28.8	54.2	13.8	1.2	.0	14.6	100.0	493
12015	.4	1.5	33.7	46.6	17.4	.4	.0	14.5	100.0	466
18021	.2	2.0	34.1	48.4	13.9	1.4	.0	14.2	100.0	440
TOT	.7	3.0	60.9	92.9	26.7	1.6	0	14.2		1864
PCT	.4	1.9	32.7	49.8	14.3	.9	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & DBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.4	.4	.4	.0		4.1
NE	.1	.2	.5	.0		5.6
E	1.3	.2	.4	1.0		4.1
SE	8.0	3.5	7.1	2.3		3.7
S	15.4	6.4	13.7	3.5		3.8
SW	5.0	5.2	8.5	3.7		4.7
W	1.5	2.2	3.5	1.4		5.0
NW	.9	.5	.8	.8		4.7
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.1	.1		6.5
TOT OBS	253	140	262	94	751	4.1
TOT PCT	33.7	18.6	34.9	12.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3999	4999	6499	7999			
.0	.0	.0	.0	.1	.0	.0	.0	.1	.0	.9	
.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.4	
.0	.0	.0	.4	.7	.2	.0	.0	.0	.0	1.7	
.0	.0	.5	3.0	2.5	1.1	.3	.3	.1	.1	13.7	
.0	.0	.1	1.6	3.7	4.8	2.7	.5	.3	.4	25.3	
.0	.0	.0	.8	2.7	3.6	1.7	.5	.0	.1	12.9	
.0	.0	.0	.1	1.5	1.6	.6	.0	.0	.0	4.8	
.0	.0	.0	.1	.7	.4	.0	.0	.0	.0	1.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
.0	.0	1	2.7	9.6	9.8	4.5	1.0	.5	.5	46.4	751
.0	.0	.1	3.6	12.8	13.0	6.0	1.3	.7	.7	61.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3
>6000	2.4	2.6	2.6	2.6	2.6	2.6	2.6	2.6
>5500	7.5	8.6	8.6	8.6	8.6	8.6	8.6	8.6
>5000	19.8	21.6	21.6	21.6	21.6	21.6	21.6	21.6
>4500	31.1	34.3	34.3	34.4	34.4	34.4	34.4	34.4
>4000	33.3	37.4	37.8	37.9	37.9	37.9	37.9	37.9
>3500	33.5	37.5	37.9	38.1	38.1	38.1	38.1	38.1
>3000	33.5	37.5	37.9	38.1	38.1	38.1	38.1	38.1
>2500	33.5	37.5	37.9	38.1	38.1	38.1	38.1	38.1
>2000	33.5	37.5	37.9	38.1	38.1	38.1	38.1	38.1
TOTAL	254	285	288	289	289	289	289	289

TOTAL NUMBER OF OBS: 759

PCT FREQ NH <5/8: 61.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	DBSCD	TOTAL OBS
13.6	11.7	14.8	11.7	9.6	8.3	9.9	10.6	10.0	.0	832

PERIOD: (PRIMARY) 1921-1972  
(OVER-ALL) 1857-1972

NOVEMBER

AREA 0018 PERTH NW  
29.95 112.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
1/2<1	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1
	NO PCP	* .0	.0	*	.2	.1	.1	.1	.1	.0	.0	.0	.6
	TOT %	* .0	.0	.1	.2	.1	.1	.1	.1	.0	.0	.0	.7
1<2	PCP	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.0	.1
	NO PCP	.0	.0	.0	*	.1	.0	.1	.0	.0	.0	.0	.3
	TOT %	.0	.0	.0	.1	.2	.0	.1	.0	.0	.0	.0	.4
2<5	PCP	.0	.0	.2	.0	.1	*	.0	.0	.0	.0	.0	.3
	NO PCP	.1	.0	.0	.0	.1	.1	.1	*	.0	.0	.0	.4
	TOT %	.1	.0	.2	.0	.1	.2	.1	*	.0	.0	.0	.6
5<10	PCP	.0	*	.2	.2	.4	.6	.9	.2	.0	.0	.0	2.5
	NO PCP	.4	.3	.6	3.2	9.5	5.0	3.1	1.5	.0	.3	.0	24.0
	TOT %	.4	.3	.8	3.5	9.8	5.6	4.0	1.7	.0	.3	.0	26.5
10+	PCP	.0	.1	.2	.1	.2	.5	.2	.0	.0	.0	.0	1.3
	NO PCP	.9	.5	2.0	14.5	28.5	15.8	6.0	2.1	.0	.1	.0	70.4
	TOT %	.9	.6	2.2	14.6	28.7	16.2	6.2	2.1	.0	.1	.0	71.7
TOT OBS		1077											
TOT PCT		1.4	.9	3.2	18.3	39.2	22.1	10.5	4.0	.0	.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.1
	11-21	*	.0	.0	.1	.2	.1	.2	.1	.0	.0	.0	.7
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1
	TOT %	*	.0	.0	.1	.3	.1	.3	.1	.0	.0	.0	.9
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.1	.0	*	.1	.0	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.3	.1	.1	.0	.0	.0	.0	.5
	22+	.0	.0	.0	*	.2	.0	.0	.0	.0	.0	.0	.3
	TOT %	.0	.1	.0	.1	.5	.2	.1	.0	.0	.0	.0	1.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	*	.0	.1	.0	*	*	*	*	.0	.0	.0	.3
	11-21	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1
	22+	.0	.0	.1	*	.1	.1	.0	.0	.0	.0	.0	.3
	TOT %	*	.0	.2	*	.1	.1	*	*	.0	.0	.0	.6
5<10	0-3	.0	*	*	.0	.3	.1	*	.0	.0	.2	.0	.7
	4-10	.1	.2	.3	1.2	2.8	2.6	1.7	.6	.0	.0	.0	9.4
	11-21	.3	.1	.5	3.0	7.4	3.0	1.7	.9	.0	.0	.0	16.8
	22+	.0	.1	.0	.8	1.4	.7	.3	.2	.0	.0	.0	3.4
	TOT %	.4	.4	.8	4.9	11.8	6.4	3.8	1.6	.0	.2	.0	30.4
10+	0-3	.1	.1	.1	.1	.2	.4	.1	.1	.0	.1	.1	1.1
	4-10	.1	.2	1.0	3.0	7.7	7.5	2.5	1.0	.0	.0	.0	22.9
	11-21	.3	.1	.7	7.5	12.9	6.7	2.6	.5	.0	.0	.0	31.4
	22+	.1	.1	.1	3.3	6.3	1.2	.3	.1	.0	.0	.0	11.6
	TOT %	.6	.4	2.0	14.0	27.0	15.7	5.5	1.6	.0	.1	.0	67.0
TOT OBS		1520											
TOT PCT		1.1	.9	3.0	19.1	39.9	22.6	9.8	3.4	.0	.3	100.0	

NOVEMBER

PERIOD: (PRIMARY) 1921-1972  
(OVER-ALL) 1857-1972

AREA 0018 PERTH NW  
29.95 112.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.5	2.9	12.4	17.2	6.2	1.0	1.0	.5	41.6	58.4	209
06009	.0	.0	.0	3.4	7.3	11.7	4.9	2.0	1.5	.5	31.2	68.8	205
12015	.0	.0	.0	3.7	12.8	12.2	5.3	1.1	.0	1.1	36.2	63.8	188
18021	.0	.0	.0	3.6	16.2	8.1	6.1	1.0	.0	.5	35.5	64.5	197
TOT	0	0	1	27	97	99	45	10	5	5	289	510	799
PCT	.0	.0	.1	3.4	12.1	12.4	5.6	1.3	.6	.6	36.2	63.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.3	.5	.5	.8	30.2	67.8	391
06009	.0	.8	1.1	.5	28.6	69.0	374
12015	.3	2.0	1.5	.8	33.0	62.4	391
18021	.0	.5	.8	.5	29.3	68.8	375
TOT	2	15	15	10	464	1025	1531
PCT	.1	1.0	1.0	.7	30.3	66.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.5	3.6	40.8	55.6	196
06009	.0	.0	4.6	28.9	66.5	194
12015	.0	.5	4.9	33.2	62.0	184
18021	.0	.0	4.3	34.1	61.6	185
TOT	0	2	33	260	466	759
PCT	.0	.3	4.3	34.3	61.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.1	.3	.1	.5	.1	.2	14	1.2
70/74	.0	.0	.1	1.3	2.0	4.3	2.2	1.0	122	10.8
65/69	.0	.0	.1	2.3	7.3	15.6	15.6	7.6	546	48.5
60/64	.0	.0	.1	1.8	12.4	13.4	7.2	2.3	419	37.2
55/59	.0	.0	.0	.2	.7	.8	.4	.1	24	2.1
TOTAL	0	0	4	66	253	389	287	126	1125	100.0
PCT	.0	.0	.4	5.9	22.5	34.6	25.5	11.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	.0	.1	.1	.2	.5	.1	.1	.1	.0	.0
70/74	.0	.4	1.1	2.1	4.8	1.3	.9	.3	.0	.0
65/69	.8	.4	1.1	9.4	18.7	11.1	4.7	2.2	.0	.2
60/64	.1	.4	.4	7.7	14.8	9.8	3.7	.6	.0	.2
55/59	.0	.0	.1	.3	1.1	.5	.2	.0	.0	.0
TOTAL	.8	.8	2.8	19.7	39.9	22.8	9.6	3.3	.0	.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	80	76	72	65	60	58	57	65.8	442
06009	79	76	73	67	61	59	57	67.2	440
12015	81	74	71	65	61	58	57	65.3	461
18021	72	71	69	64	59	57	55	64.0	440
TOT	81	75	72	65	60	58	55	65.6	1803

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	6.1	24.2	36.5	23.9	9.2	75	293
06009	.0	14.3	27.1	33.7	18.3	6.6	72	273
12015	.0	2.5	18.7	30.0	29.0	13.8	78	283
18021	.0	2.5	19.6	31.2	30.9	15.8	78	285
TOT	0	71	254	390	290	129	76	1134



## NOVEMBER

PERIOD: (PRIMARY) 1921-1972  
(OVER-ALL) 1857-1972

TABLE 17

AREA 0018 PERTH NW  
29.95 112.6E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WD FOG
9/10	.0	.0	.0	.0	.0	.1	.3	.1	5	.0	.6
7/8	.0	.0	.0	.0	.0	.1	.2	.0	3	.0	.3
6	.0	.0	.1	.0	.1	.1	.0	.0	3	.0	.3
5	.0	.0	.0	.0	.6	.3	.1	.0	9	.0	1.0
4	.0	.0	.0	.2	1.1	.3	.0	.0	15	.1	1.6
3	.0	.0	.1	.9	1.8	.3	.0	.0	28	.1	3.1
2	.0	.0	.2	2.2	3.0	.0	.0	.0	47	.0	5.4
1	.0	.0	.8	3.3	1.6	.0	.0	.0	50	.0	5.7
0	.0	.1	3.0	7.6	2.3	.0	.0	.0	114	.1	12.9
-1	.0	.0	4.3	8.4	2.2	.0	.0	.0	131	.1	14.8
-2	.0	.2	6.7	8.3	.3	.0	.0	.0	137	.0	15.6
-3	.0	.3	8.0	4.2	.2	.0	.0	.0	112	.0	12.8
-4	.0	1.1	6.3	3.2	.0	.0	.0	.0	93	.0	10.6
-5	.1	1.0	4.3	1.8	.0	.0	.0	.0	64	.0	7.3
-6	.0	1.1	1.9	.6	.0	.0	.0	.0	32	.0	3.6
-7/-8	.0	1.4	1.6	.1	.0	.0	.0	.0	27	.0	3.1
-9/-10	.0	.7	.0	.0	.0	.0	.0	.0	6	.0	.7
-11/-13	.0	.1	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	1	54	328	116	12	6	1	877	4	873	
PCT	.1	6.2	37.4	40.4	13.2	1.4	.7	100.0	.5	99.5	

PERIOD: (OVER-ALL) 1943-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N								NE							
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.0	.0	.0	.0	.0	.0		.3	.0	.0	.0	.0	.0	.3	
1-2	.3	.0	.0	.0	.0	.0	.3		.0	.1	.3	.0	.0	.0	.4	
3-4	.0	.0	.3	.0	.0	.0	.3		.0	.3	.0	.3	.0	.0	.5	
5-6	.0	.0	.3	.0	.0	.0	.3		.0	.0	.0	.0	.0	.0	.0	
7	.0	.3	.0	.0	.0	.0	.3		.0	.1	.0	.3	.0	.0	.3	
8-9	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.3	.0	.0	.3		.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	.3	.5	.3	.0	.0	1.3		.3	.4	.3	.5	.0	.0	1.5	

HGT	E								SE							
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.4	.0	.0	.0	.0	.0	.4		.0	.3	.0	.0	.0	.0	.3	
1-2	.0	.4	.5	.0	.0	.0	.9		.0	1.2	.8	.0	.0	.0	2.0	
3-4	.0	.5	1.2	.2	.0	.0	1.9		.0	1.6	2.3	1.0	.0	.0	4.9	
5-6	.0	.0	.7	.0	.0	.0	.7		.0	.3	3.2	.9	.3	.0	4.6	
7	.0	.2	.0	.0	.0	.0	.2		.0	.0	2.2	.9	.3	.0	3.3	
8-9	.0	.0	.0	.0	.0	.0	.0		.0	.0	.6	2.2	.0	.0	2.9	
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.4	.3	.0	.6	
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.3	.0	.0	.3	
17-19	.0	.0	.0	.0	.3	.0	.3		.0	.0	.0	.3	.0	.0	.3	
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	1.1	2.4	.2	.3	.0	4.4		.0	3.3	9.2	5.9	.8	.0	19.2	

PERIOD: (OVER-ALL) 1943-1977

NOVEMBER

AREA 0018 PERTH NW  
29.95 112.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.4	.0	.0	.0	.0	.4	.0	.8	.0	.0	.0	.0	.0	.8	.0
1-2	.0	3.0	1.6	.0	.0	.0	4.6	.0	6.1	1.1	.0	.0	.0	.0	7.2	.0
3-4	.0	2.3	6.2	1.6	.0	.0	10.1	.0	2.8	4.4	.1	.0	.0	.0	7.2	.0
5-6	.0	.9	8.4	1.9	.0	.0	11.2	.0	.4	1.5	.5	.0	.0	.0	2.5	.0
7	.0	.0	2.2	2.2	.0	.0	4.3	.0	.3	.3	.5	.0	.0	.0	1.1	.0
8-9	.0	.0	2.2	1.3	.3	.0	3.7	.0	.0	.0	.3	.0	.0	.0	.3	.0
10-11	.0	.0	.0	1.6	.0	.0	1.6	.0	.0	.0	.1	.0	.0	.0	.1	.0
12	.0	.0	.0	.3	.3	.0	.5	.0	.0	.0	.1	.0	.0	.0	.1	.0
13-16	.0	.0	.0	.6	.0	.0	.6	.0	.0	.5	.0	.1	.0	.0	.6	.0
17-19	.0	.0	.0	.5	.3	.0	.8	.0	.0	.0	.3	.0	.0	.0	.3	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	6.7	20.4	10.0	.8	.0	37.8	.0	10.9	7.4	1.8	.0	.0	.0	20.1	.0

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.3	.3	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.7	.4	.0	.0	.0	3.2	.0	.7	.6	.0	.0	.0	.0	.0	1.3	.0
3-4	.3	1.9	1.8	.0	.0	.0	4.0	.0	1.0	.1	.0	.0	.0	.0	.0	1.1	.0
5-6	.0	.0	.9	.5	.0	.0	2.5	.0	.3	.8	.3	.0	.0	.0	.0	1.3	.0
7	.0	.0	.7	.0	.0	.0	.7	.0	.0	.3	.0	.0	.0	.0	.0	.3	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	6.0	3.9	.9	.0	.0	11.3	.0	2.0	1.6	.3	.0	.0	.0	3.9	99.5	.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.5	2.3	.0	.0	.0	.0	3.8	
1-2	.3	14.1	5.3	.0	.0	.0	19.6	
3-4	.5	10.3	16.1	3.0	.0	.0	30.0	
5-6	.0	3.0	15.6	4.0	.3	.0	22.9	
7	.0	.8	5.5	3.8	.3	.0	10.3	
8-9	.0	.0	2.8	3.8	.3	.0	6.8	
10-11	.0	.0	.0	2.5	.3	.0	2.8	
12	.0	.0	.0	.5	.3	.0	.8	
13-16	.0	.5	.0	1.0	.0	.0	1.5	
17-19	.0	.0	.0	1.0	.5	.0	1.5	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.3	31.0	45.3	19.6	1.8	.0	100.0	397

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.6	3.2	6.1	3.5	1.6	.2	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	103	4
6-7	.0	.2	5.3	7.7	7.1	3.5	2.1	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	163	6
8-9	.0	.0	.0	5.2	6.3	6.3	1.8	1.6	1.4	.5	.2	.2	.0	.0	.0	.0	.0	.0	.0	145	8
10-11	.0	.0	.3	2.4	3.9	3.9	1.8	2.3	1.6	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	105	9
12-13	.0	.0	.0	.2	.2	1.9	1.3	.3	1.1	.0	.3	.2	.0	.0	.0	.0	.0	.0	.0	34	11
14-15	.0	.0	.0	.0	.0	.5	.7	1.0	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	11
16-17	.3	.5	2.3	1.8	.8	1.4	1.3	.2	.5	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	57	6
TOTAL	12	24	87	129	123	110	53	34	34	8	5	2	0	0	0	0	0	0	0	821	7
PCT	1.9	3.9	14.0	20.8	19.8	17.7	8.5	5.5	5.5	1.3	.8	.3	.0	.0	.0	.0	.0	.0	.0	100.0	

## DECEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1857-1972

AREA 0018 PERTH NW  
30.15 112.7E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.1	.0	.0	27.3	.0	63.6	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	96.4	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	.0	.0	3.5	2.6	90.4	
SE	.4	.8	.0	.0	.0	.0	.0	1.2	.4	1.4	.0	.0	1.9	.8	94.7	
S	.1	.3	.2	.0	.0	.0	.0	.6	.3	1.4	.8	.2	1.4	.0	95.3	
SW	.1	2.3	1.2	.0	.0	.0	.0	3.6	1.6	2.7	2.3	.0	3.3	.0	86.4	
W	.5	3.2	.0	.0	.0	.0	.0	3.8	4.3	.0	1.1	.0	.5	.0	90.3	
NW	1.9	.0	.0	.0	.0	.0	.0	1.9	11.3	1.9	.0	.0	9.4	.0	75.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
TOT PCT	.2	1.0	.3	.0	.0	.0	.0	1.6	1.1	1.7	.9	.1	2.1	.2	92.4	
TOT OBS:	1272															

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW
00003	.3	1.6	.0	.0	.0	.0	.0	1.9	.9	.6	.9	.0	1.6	.3	93.8
06009	.0	1.1	.0	.0	.0	.0	.0	1.1	1.8	.4	.7	.0	3.6	.4	92.0
12015	.0	.8	.3	.0	.0	.0	.0	1.1	.3	2.9	1.3	.0	2.7	.3	91.5
18021	.6	1.0	1.0	.0	.0	.0	.0	2.6	1.6	2.6	.6	.3	.6	.0	92.0
TOT PCT	.2	1.1	.3	.0	.0	.0	.0	1.6	1.1	1.7	.9	.1	2.1	.2	92.3
TOT OBS:	1282														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.0	.3	.1	*	.0	.0		.4	9.6		.9	.0	.0	.4	.1	.5	.4	.7
NE	.2	.3	.2	.0	.0	.0		.6	7.4		1.0	2.9	.2	.8	.0	.0	.0	2.1
E	*	.9	.9	.2	.0	.0		2.1	12.5		3.9	5.3	1.7	2.1	.9	.5	.8	2.7
SE	.1	4.1	14.0	4.1	.0	.0		21.3	16.0		25.0	16.8	26.4	18.1	18.9	15.5	20.6	20.0
S	.1	10.0	27.6	8.5	.2	.0		46.4	15.9		43.6	35.6	48.8	43.1	49.7	52.5	49.5	43.8
SW	.1	8.0	9.9	2.0	.2	.0		20.2	13.4		18.0	24.5	15.8	25.8	22.5	23.6	18.7	21.4
W	*	2.8	3.3	.1	.0	.0		6.3	11.6		4.5	7.9	8.3	6.3	6.6	3.7	6.9	5.8
NW	.1	.9	1.1	*	.0	.0		2.2	10.9		2.7	5.0	.8	3.3	1.2	2.8	2.3	2.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.4							.4	.0		.3	1.9	.0	.0	.0	.9	.7	.7
TOT DBS	21	483	995	267	8	0	1774		14.8		338	104	308	120	381	108	269	145
TOT PCT	1.2	27.2	56.1	15.1	.5	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	06	12	18
N	.2	.2	.0	*	.0	.4	9.6	.7	.1	.2	.5
NE	.3	.2	.1	.0	.0	.6	7.4	1.4	.4	.0	.7
E	.4	1.2	.5	.0	.0	2.1	12.5	4.2	1.8	.8	1.5
SE	1.4	9.7	9.2	1.0	.0	21.3	16.0	23.1	24.1	18.1	20.4
S	1.7	22.9	20.0	1.7	*	46.4	15.9	41.7	45.7	50.4	47.5
SW	2.0	12.4	5.1	*	*	20.2	13.4	19.6	18.6	22.8	19.6
W	.9	4.4	1.0	*	.0	6.3	11.6	5.3	7.7	5.9	6.5
NW	.5	1.4	.3	*	.0	2.2	10.9	3.3	1.5	1.6	2.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.4					.4	.0	.7	.0	.2	.7
TOT DBS	139	929	643	62	1	1774		442	428	489	415
TOT PCT	7.8	52.4	36.2	3.5	.1	100.0		100.0	100.0	100.0	100.0

DECEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1857-1972

AREA 0018 PERTH NW  
30.15 112.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	.7	2.3	28.5	56.8	11.5	.2	.0	14.1	100.0	442	
06009	.0	.2	24.3	59.1	15.9	.5	.0	15.1	100.0	428	
12015	.2	.0	27.2	52.6	18.4	1.0	.0	15.3	100.0	489	
18021	.7	.0	28.9	56.4	14.0	.0	.0	14.7	100.0	415	
TOT	7	14	483	995	267	8	0	14.8		1774	
PCT	.4	.8	27.2	56.1	15.1	.5	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & DBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.2	.1	7.0	
NE	.0	.1	.0	.0	3.5	
E	1.5	.1	.3	.1	2.0	
SE	11.4	3.9	5.5	2.1	3.1	
S	17.5	9.8	17.3	4.4	3.8	
SW	5.0	4.1	7.4	1.3	4.2	
W	1.4	1.7	2.9	.6	4.6	
NW	.1	.3	.5	.1	5.3	
VAR	.0	.0	.0	.0	.0	
CALM	.2	.1	.0	.1	3.5	
TOT OBS	329	178	304	78	888	3.7
TOT PCT	37.0	20.0	34.2	8.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.1	.0	.0	.1	.1	.0	.0	.0	1.7
.0	.0	.3	.2	1.9	1.2	1.3	.4	.1	.0	.0	17.4
.0	.0	.6	1.0	6.7	4.9	2.8	.1	.0	.0	.0	32.8
.0	.0	.0	.6	1.7	2.1	1.9	.3	.1	.0	.0	11.0
.0	.0	.1	.5	.7	.3	.5	.1	.0	.0	.0	4.3
.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.0	.6
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.3
.0	.0	.9	25	101	77	58	9	2	.0	.0	888
.0	.0	1.0	2.8	11.4	8.7	6.5	1.0	.2	.0	.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.2	.2	.2	.2	.2	.2	.2	.2
>5000	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
>3500	7.5	7.9	7.9	7.9	7.9	7.9	7.9	7.9
>2000	14.9	16.5	16.5	16.5	16.5	16.5	16.5	16.5
>1000	24.4	27.7	27.8	27.8	27.8	27.8	27.8	27.8
>600	26.9	30.4	30.6	30.6	30.6	30.6	30.6	30.6
>300	27.8	31.4	31.6	31.6	31.6	31.6	31.6	31.6
>150	27.8	31.4	31.6	31.6	31.6	31.6	31.6	31.6
>0	27.8	31.4	31.6	31.6	31.6	31.6	31.6	31.6
TOTAL	248	280	282	282	282	282	282	282

TOTAL NUMBER OF OBS: 891

PCT FREQ NH <5/8: 68.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	DBSCD	TOTAL OBS
17.0	14.7	14.5	12.5	9.3	7.4	9.1	9.0	6.5	.0	958

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1857-1972

DECEMBER

TABLE 8

AREA 0018 PERTH NW  
30.15 112.7E

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL DBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.1	.3	.1	.0	.0	.0	.0	.5
	TOT %	.0	.0	.0	.0	.1	.3	.1	.0	.0	.0	.0	.5
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.1	.0	.1	.3	.4	.8	*	.1	.0	.0	.0	1.9
	TOT %	.1	.0	.1	.3	.4	.8	*	.1	.0	.0	.0	1.9
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.3	.1	.1	.0	.0	.0	.0	.5
	TOT %	.0	.0	.0	.0	.3	.1	.1	.0	.0	.0	.0	.5
5<10	PCP	.0	.0	.0	.2	.2	.3	.2	*	.0	.0	.0	.9
	NO PCP	.1	.2	.5	5.4	13.7	6.3	1.9	1.1	.0	.0	.0	29.2
	TOT %	.1	.2	.5	5.5	13.8	6.6	2.1	1.1	.0	.0	.0	30.0
10+	PCP	.0	.0	.0	.1	.1	.4	.1	.0	.0	.0	.0	.7
	NO PCP	.2	.3	1.7	13.7	32.4	12.0	4.9	.9	.0	.3	.0	66.4
	TOT %	.2	.3	1.7	13.8	32.5	12.4	5.0	.9	.0	.3	.0	67.1
TOT DBS													1272
TOT PCT		.4	.6	2.3	19.0	47.2	20.3	7.3	2.1	.0	.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL DBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	*	.1	*	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	*	.1	*	.0	.0	.0	.0	.1
	22+	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.0	.0	.1	.2	.1	.0	.0	.0	.0	.4
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.3
	11-21	*	.0	.1	.2	.3	.3	*	.1	.0	.0	.0	1.0
	22+	.0	.0	.0	.1	.1	.2	.0	.0	.0	.0	.0	.4
	TOT %	.1	.0	.1	.3	.4	.7	*	.1	.0	.0	.0	1.6
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.2	.1	*	.0	.0	.0	.0	.4
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.2	.1	*	.0	.0	.0	.0	.4
5<10	0-3	.0	.0	.0	.1	*	*	.0	.0	.0	.0	.0	.1
	4-10	.1	.1	.3	.6	2.2	2.0	.7	.5	.0	.0	.0	6.6
	11-21	.0	.1	.2	2.8	7.9	2.9	1.0	.4	.0	.0	.0	15.3
	22+	.0	.0	.0	1.5	2.2	.8	.0	.0	.0	.0	.0	4.4
	TOT %	.1	.2	.4	5.0	12.3	5.7	1.8	.9	.0	.0	.0	26.4
10+	0-3	.0	.1	.0	*	*	.1	*	.1	.0	.3	.0	.8
	4-10	.1	.1	.6	3.1	7.5	5.8	2.3	.4	.0	.0	.0	20.0
	11-21	.1	.1	.6	10.2	20.2	6.5	2.1	.5	.0	.0	.0	40.3
	22+	.0	.0	.2	2.7	6.1	1.0	.1	.0	.0	.0	.0	10.1
	TOT %	.2	.3	1.4	16.0	33.8	13.5	4.6	1.0	.0	.3	.0	71.1
TOT DBS													1518
TOT PCT		.4	.5	1.9	21.2	46.8	20.3	6.5	2.0	.0	.3	100.0	



## DECEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1857-1972

AREA 0018 PERTH NW  
30.15 112.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.8	1.7	12.6	10.0	6.7	2.5	.4	.0	34.7	65.3	239
06009	.0	.0	.8	2.1	7.0	8.2	5.8	.4	.4	.0	24.7	75.3	243
12015	.0	.0	1.7	3.0	10.6	6.4	6.8	.4	.0	.0	28.9	71.1	235
18021	.0	.0	.5	4.1	13.3	8.3	6.0	.9	.0	.0	33.0	67.0	218
TOT	0	0	9	25	101	77	59	10	2	0	283	652	935
PCT	.0	.0	1.0	2.7	10.8	8.2	6.3	1.1	.2	.0	30.3	69.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.3	1.3	.3	23.8	74.4	383
06009	.0	.3	2.4	.0	21.1	76.0	342
12015	.0	.7	2.1	.7	33.3	63.2	435
18021	.0	.3	.5	.5	26.8	71.8	369
TOT	0	6	25	6	407	1085	1529
PCT	.0	.4	1.6	.4	26.6	71.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	1.3	3.5	33.0	63.5	230
06009	.0	.9	3.1	23.2	73.7	228
12015	.0	1.8	5.8	25.4	68.8	224
18021	.0	.5	5.2	29.0	65.7	210
TOT	0	10	39	247	606	892
PCT	.0	1.1	4.4	27.7	67.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.2	.1	.2	.0	.0	.3	.0	8	.7
75/79	.0	.0	.0	.3	1.4	2.0	.8	.1	51	4.6
70/74	.0	.0	.0	.9	3.5	7.0	8.2	2.7	248	22.3
65/69	.0	.0	.2	1.6	8.8	18.4	19.3	7.5	622	55.8
60/64	.0	.0	.0	.8	5.3	4.8	4.5	.7	180	16.2
55/59	.0	.0	.0	.1	.0	.1	.1	.2	5	.4
TOTAL	0	2	3	43	212	360	369	125	1114	100.0
PCT	.0	.2	.3	3.9	19.0	32.3	33.1	11.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.2	.2	.1	.1	.1	.0	.1	.0	.0
.0	*	.6	1.0	1.4	.6	.5	.2	.0	.3	
.1	.5	.9	5.7	10.5	3.0	1.1	.6	.0	.0	
.1	*	.6	11.3	27.9	11.5	3.5	.8	.0	.1	
.0	.0	.0	3.5	7.2	4.2	1.1	.1	.0	.0	
.0	.0	.0	*	.3	.1	.0	.0	.0	.0	
.2	.6	2.3	21.8	47.4	19.5	6.2	1.7	.0	.4	

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	85	80	75	68	62	59	57	68.1	434
06009	84	80	77	69	64	62	62	69.7	414
12015	83	77	74	67	63	61	58	67.6	486
18021	77	74	71	66	62	60	58	66.3	416
TOT	85	79	75	68	63	61	57	67.9	1750

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	4.6	22.5	33.9	30.4	8.6	76	280
06009	.0	8.3	26.4	32.7	26.8	5.9	74	254
12015	.0	2.8	14.7	31.6	36.9	14.1	78	320
18021	.0	2.3	13.6	31.1	37.1	15.9	79	264
TOT	0	49	213	361	369	126	77	1118

DECEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1857-1972

TABLE 17

AREA 0018 PERTH NW  
30.15 112.7E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.0	.2	.1	3	.0	.3
9/10	.0	.0	.0	.0	.2	.6	.1	.0	10	.0	.9
7/8	.0	.0	.0	.2	.3	.6	.2	.0	14	.0	1.3
6	.0	.0	.0	.2	.7	.4	.0	.0	14	.0	1.3
5	.0	.0	.2	.4	.7	.5	.0	.0	19	.0	1.7
4	.0	.0	.1	1.3	1.3	.2	.0	.0	31	.0	2.9
3	.0	.3	.4	2.1	1.7	.4	.0	.0	53	.0	4.9
2	.0	.0	1.0	3.6	1.7	.1	.0	.0	69	.0	6.3
1	.0	.4	2.7	3.4	1.2	.0	.0	.0	83	.1	7.5
0	.0	.8	8.1	4.3	.8	.0	.0	.0	153	.1	14.0
-1	.0	.9	8.8	2.9	.2	.0	.0	.0	140	.5	12.4
-2	.0	2.3	9.4	1.8	.1	.0	.0	.0	148	.1	13.5
-3	.3	3.4	7.4	1.7	.0	.0	.0	.0	139	.2	12.6
-4	.1	4.4	3.8	1.1	.0	.0	.0	.0	102	.0	9.4
-5	.2	2.5	2.6	.6	.0	.0	.0	.0	64	.0	5.9
-6	.1	1.2	.6	.2	.0	.0	.0	.0	22	.0	2.0
-7/-8	.2	1.0	.2	.2	.0	.0	.0	.0	17	.0	1.6
-9/-10	.0	.4	.1	.0	.0	.0	.0	.0	5	.0	.5
-11/-13	.1	.0	.0	.0	.0	.0	.0	.0	1	.0	.1
TOTAL	10		491		97		5		1087	10	1077
PCT	.9	17.6	45.2	24.1	8.9	2.8	.5	.1	100.0	.9	99.1

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
3-4	.0	.2	.0	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.2	.2	.0	.0	.0	.4	.0	.1	.0	.0	.0	.0	.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.9	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.2	.0	.0	.0	.0	.2	.0	2.2	.9	.0	.0	.0	3.2
3-4	.0	.0	.6	.2	.0	.0	.8	.0	.5	4.2	.1	.0	.0	4.9
5-6	.0	.2	.2	.0	.0	.0	.5	.0	.0	5.0	.6	.0	.0	5.6
7	.0	.0	.0	.2	.0	.0	.2	.0	.2	1.4	.4	.0	.0	2.1
8-9	.0	.0	.0	.0	.2	.0	.2	.0	.0	.3	.1	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.1	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.4	.9	.6	.0	.0	2.9	.0	3.0	12.1	1.9	.0	.0	17.0

PERIOD: (OVER-ALL) 1963-1977

DECEMBER

TABLE 18 (CONT)

AREA 0018 PERTH NW  
30.15 112.7E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.2	.0	.0	.0	.0	.2	.2	.2	.0	.0	.0	.0	.5	
1-2	.0	3.7	2.3	.0	.0	.0	6.0	.0	4.5	1.1	.0	.0	.0	5.5	
3-4	.0	6.4	9.2	.2	.0	.0	15.8	.2	3.2	6.5	.0	.0	.0	10.0	
5-6	.0	.5	10.6	2.2	.0	.0	13.2	.0	.0	2.7	.0	.0	.0	2.7	
7	.0	.0	2.8	2.4	.0	.0	5.2	.0	.0	.8	.2	.0	.0	1.0	
8-9	.0	.2	2.3	2.7	.0	.0	5.2	.0	.0	.0	.2	.0	.0	.2	
10-11	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2	
13-16	.0	.0	.0	.2	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	11.1	27.1	7.8	.0	.0	46.0	.5	8.0	11.0	.5	.5	.0	20.4	

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.2	.4	.0	.0	.0	.0	.5	.1	.4	.0	.0	.0	.0	.4		
1-2	.0	3.2	.4	.0	.0	.0	3.7	.0	.5	.0	.0	.0	.0	.5		
3-4	.0	.6	2.6	.2	.0	.0	3.5	.0	.0	1.1	.0	.0	.0	1.1		
5-6	.0	.2	1.8	.0	.0	.0	2.1	.0	.0	.0	.0	.0	.0	.0		
7	.0	.0	.5	.0	.0	.0	.5	.0	.0	.2	.0	.0	.0	.2		
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.2	4.5	5.3	.2	.0	.0	10.2	.1	.8	1.4	.0	.0	.0	2.2	99.3	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.2	2.1	.0	.0	.0	.0	3.3	
1-2	.0	14.4	4.7	.0	.0	.0	19.1	
3-4	.2	11.1	24.3	.7	.0	.0	36.3	
5-6	.0	.9	20.3	2.8	.0	.0	24.1	
7	.0	.2	5.9	3.3	.0	.0	9.4	
8-9	.0	.2	2.6	3.3	.0	.0	6.1	
10-11	.0	.0	.2	.2	.0	.0	.5	
12	.0	.0	.0	.0	.2	.0	.2	
13-16	.0	.0	.0	.7	.0	.0	.7	
17-19	.0	.0	.0	.0	.2	.0	.2	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.4	29.0	58.0	11.1	.5	.0	100.0	424

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.3	3.7	6.4	5.1	2.1	1.0	.3	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	138	4
6-7	.0	.1	3.4	10.5	5.1	5.4	2.4	.4	.6	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	225	7
8-9	.0	.0	1.1	5.3	5.5	2.8	3.1	2.8	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	154	8
10-11	.0	.3	.3	1.6	3.1	3.4	2.1	1.0	.1	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	85	8
12-13	.0	.0	.1	.0	.7	.4	.3	.4	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	10
>13	.0	.0	.0	.0	.3	.1	.1	.4	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	11
INDPT	.7	1.1	3.3	1.3	1.3	1.3	.6	.1	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	770	5
TOTAL	7	37	103	167	156	102	63	42	18	5	2	1	0	0	0	0	0	0	0	703	7
PCT	1.0	5.3	14.7	23.8	22.2	14.5	9.0	6.0	2.6	.7	.3	.1	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1919-1972  
(OVER-ALL) 1854-1972

ANNUAL

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA	
N	1.9	2.9	3.5	.0	.0	.0	.0	8.2	3.3	2.3	.5	1.0	4.8	.0	79.9	
NE	2.0	.3	1.0	.0	.0	.0	.0	3.3	1.6	2.3	1.3	.0	.9	.3	90.4	
E	2.0	.9	.5	.0	.0	.0	.0	3.4	.4	2.5	.8	.0	.9	.2	91.9	
SE	.9	1.0	.5	.0	.0	.0	.0	2.3	.7	.8	.7	*	1.3	.1	94.2	
S	1.1	2.3	.7	.0	.0	.0	.0	4.0	1.0	.8	1.0	.1	1.5	*	91.6	
SW	1.7	5.7	.8	.0	.0	.0	*	8.3	2.6	1.1	.8	*	1.2	.0	86.2	
W	2.1	8.9	.8	.0	.0	.0	.1	11.8	3.2	.9	1.5	.0	.8	.0	82.0	
NW	2.9	6.7	.5	.0	.0	.0	.0	10.1	4.3	2.2	2.1	.0	1.4	.0	80.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	2.8	.0	.0	.0	.0	.0	22.2	
CALM	1.5	.0	.6	.0	.0	.0	.0	1.5	1.0	2.1	2.6	.0	.0	.0	92.7	
TOT PCT	1.5	3.7	.7	.0	.0	.0	*	6.0	1.8	1.1	.8	*	1.3	*	89.2	
TOT OBS: 15099																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
0000	1.3	3.8	.6	.0	.0	.0	.1	5.7	2.1	.3	.7	*	1.4	*	89.8	
0600	1.5	3.2	.9	.0	.0	.0	*	5.5	1.7	.2	1.0	.0	1.7	*	90.0	
1200	1.7	3.7	.6	.0	.0	.0	.0	5.9	1.6	1.7	1.2	*	1.5	*	88.3	
1800	1.8	3.9	1.0	.0	.0	.0	.0	6.7	1.6	2.1	.4	.1	.6	*	88.7	
TOT PCT TOT OBS: 15358	1.6	3.7	.7	.0	.0	.0	*	6.0	1.7	1.1	.8	*	1.3	*	89.1	

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	.2	1.3	1.1	.4	.1	*		3.0	11.6		3.3	3.8	3.3	3.2	2.5	2.4	2.9	2.8
NE	.2	2.0	1.4	.2	*	.0		3.9	10.2		5.0	5.8	3.9	2.9	2.4	3.1	3.9	4.3
E	.3	2.8	2.8	.4	*	.0		6.3	12.1		8.5	8.7	6.6	3.5	4.2	6.1	5.8	7.1
SE	.4	5.8	11.2	3.3	.2	.0		20.9	14.2		23.2	19.0	22.5	18.5	19.1	16.2	27.7	20.0
S	.6	8.9	15.2	4.3	.2	*		29.3	13.8		26.5	25.2	29.6	30.9	33.6	30.0	29.4	26.5
SW	.5	7.2	8.0	2.5	.5	*		18.8	13.8		17.6	18.4	17.3	21.9	19.7	22.4	17.8	19.7
W	.4	3.9	4.2	2.0	.5	.1		11.1	13.8		10.3	11.5	10.6	11.6	11.5	12.5	10.7	11.7
NW	.3	2.1	2.3	1.0	.2	*		5.8	12.8		4.9	6.9	5.6	5.9	5.8	6.3	5.7	6.4
VAR	*	.0	.0	.0	.0	.0		*	.5		*	.0	.1	.0	.0	.0	.1	.0
CALM	.9							.9	.0		.7	.7	.6	.6	1.0	.9	1.3	1.4
TOT OBS							24382		14.1		4931	1500	4172	1925	4924	1382	3488	2000
TOT PCT	3.7	34.0	46.2	14.3	1.7	.1		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	.7	1.3	.8	.2	*		3.0	11.6	3.4	3.3	2.5	2.8	
NE	1.0	2.1	.7	.1	*		3.9	10.2	5.2	3.6	2.6	4.0	
E	1.3	3.6	1.3	.1	.0		6.3	12.1	8.5	5.6	4.7	6.2	
SE	2.2	10.5	7.3	.9	*		20.9	14.2	22.2	21.3	18.5	21.7	
S	3.3	14.8	10.0	1.2	*		29.3	13.8	26.2	30.0	32.8	28.3	
SW	3.0	9.8	4.7	1.2	.2		18.8	13.8	17.8	18.7	20.3	18.5	
W	1.8	5.0	2.8	1.2	.2		11.1	13.8	10.6	10.9	11.8	11.1	
NW	1.1	2.6	1.5	.5	.1		5.8	12.8	5.4	6.0	5.9	5.9	
VAR	*	.0	.0	.0	.0		*	.5	*	.1	.0	*	
CALM	.9						.9	.0	.7	.6	1.0	1.3	
TOT OBS							24382		14.1	6431	6097	6306	5548
TOT PCT	15.4	49.6	29.0	5.5	.5			100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1919-1972  
(OVER-ALL) 1854-1972

# ANNUAL

AREA 0018 PERTH NW  
29.9S 112.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	.7	3.1	35.8	45.9	12.9	1.5	.2	13.8	100.0	6431
04009	.6	2.7	31.8	48.0	14.9	1.9	.1	14.4	100.0	6097
12015	1.0	2.9	34.6	44.3	15.6	1.6	.1	14.1	100.0	6306
18021	1.3	2.7	33.6	46.7	13.7	1.9	.1	14.0	100.0	5548
TOT								14.1		24382
PCT	.9	2.8	34.0	46.2	14.3	1.7	.1	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.8	.5	1.2	.6		4.8
NE	1.7	.6	1.1	.5		3.8
E	3.6	1.0	1.4	.8		2.9
SE	10.2	4.3	6.1	2.0		3.4
S	11.1	6.1	10.6	2.8		4.0
SW	3.8	3.9	7.3	1.9		4.5
W	1.8	2.7	4.4	1.3		4.7
NW	1.1	1.0	2.0	1.0		4.9
VAR	*	*	*	*		.7
CALM	.5	.1	.2	.1		3.0
TOT OBS					10233	3.9
TOT PCT	34.5	20.1	34.4	11.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	*	*	.2	.4	.3	.1	.1	*	.1	1.9	
.0	*	*	.1	.4	.2	.2	.1	*	.1	2.8	
.0	.0	*	.1	.5	.5	.2	.1	*	.1	5.3	
*	*	.1	.6	2.2	1.9	1.0	.4	.1	.1	16.3	
*	.0	.2	1.2	3.8	3.0	1.6	.4	.1	.1	20.1	
*	*	.1	1.0	2.5	1.9	1.3	.3	.1	.1	9.6	
*	*	.1	.7	1.8	1.3	.5	.1	*	*	5.6	
*	.1	.3	1.0	.5	.3	.1	*	*	*	2.8	
.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
.0	.0	.0	*	.1	*	*	.0	.0	*	.7	
.1	*	.6	4.2	12.7	9.6	5.2	1.5	.3	.5	65.2	10233
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
* OR >500	.8	.9	.9	.9	.9	.9	.9	.9
* OR >5000	2.2	2.4	2.4	2.4	2.4	2.4	2.4	2.4
* OR >3500	7.0	7.6	7.6	7.6	7.6	7.6	7.6	7.6
* OR >2000	19.4	17.0	17.2	17.2	17.2	17.2	17.2	17.2
* OR >1000	26.2	29.4	29.7	29.8	29.8	29.8	29.8	29.8
* OR >600	29.4	33.3	33.9	34.0	34.0	34.0	34.0	34.0
* OR >300	29.8	33.8	34.5	34.5	34.6	34.6	34.6	34.6
* OR >150	29.8	33.9	34.5	34.6	34.6	34.6	34.6	34.6
* OR >0	29.8	34.0	34.6	34.7	34.7	34.7	34.8	34.8

TOTAL NUMBER OF OBS: 10350

PCT FREQ NH <5/8: 65.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
16.7	13.1	12.7	11.7	10.2	8.3	9.5	9.3	8.6	.1	11318



PERIOD: (PRIMARY) 1919-1972  
(OVER-ALL) 1854-1972

ANNUAL

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	PCP	*	.0	.0	.0	.0	.0	*	*	.0	.0	*	*	
	NO PCP	*	.0	.0	*	*	*	*	.0	.0	*	*	*	
	TOT %	*	.0	.0	*	*	*	*	*	.0	*	*	.1	
1/2<1	PCP	.0	*	.0	*	.0	*	*	.0	.0	.0	*	*	
	NO PCP	*	*	.0	*	.1	.1	.1	*	.0	.0	.3	*	
	TOT %	*	*	.0	*	.1	.1	.1	*	.0	.0	.3	*	
1<2	PCP	*	*	.0	*	*	*	.1	*	.0	.0	.1	*	
	NO PCP	*	*	*	.2	.3	.2	*	*	.0	.0	.8	*	
	TOT %	*	*	*	.2	.3	.2	.1	*	.0	.0	.9	*	
2<5	PCP	*	*	*	*	.1	*	.1	*	.0	*	.3	*	
	NO PCP	*	*	*	.2	.2	.1	.1	.1	.0	.0	.8	*	
	TOT %	.1	*	*	.2	.3	.2	.2	.1	.0	*	1.1	*	
5<10	PCP	.2	.1	.1	.2	.4	1.2	1.1	.6	.0	.0	3.9	*	
	NO PCP	.6	1.0	1.3	4.2	7.1	5.3	3.1	1.5	.0	.1	24.3	*	
	TOT %	.8	1.0	1.4	4.5	7.5	6.5	4.3	2.1	.0	.1	28.2	*	
10+	PCP	.1	.1	.1	.1	.3	.4	.4	.2	.0	.0	1.6	*	
	NO PCP	2.1	2.7	4.9	14.9	21.0	11.6	6.6	3.4	*	.6	57.8	*	
	TOT %	2.2	2.8	5.0	15.1	21.3	11.9	7.0	3.5	*	.6	69.4	*	
TOT OBS														15076
TOT PCT														3.2 3.9 6.4 20.0 29.6 18.9 11.6 5.8 * .7 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	*	
	4-10	* .0	* .0	* *	* *	* *	* *	* .0	* .0	.0	*	*	*	
	11-21	* .0	* .0	* *	* *	* *	* *	* .0	* .0	.0	*	*	*	
	22+	.0 .0	.0 .0	.0 .0	.0 .0	.0 .0	.0 *	.0 .0	.0 .0	.0	*	*	*	
	TOT %	* .0	* .0	.0 *	* *	* *	* *	* *	* .0	.0	*	* .1	*	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	*	
	4-10	.0 *	* .0	.0 *	* *	* *	* *	* *	* *	.0	*	.1	*	
	11-21	* *	* .0	.0 *	* *	* *	* *	* *	* *	.0	*	.1	*	
	22+	* *	* .0	.0 *	* *	* *	* *	* *	* *	.0	*	.1	*	
	TOT %	* *	* .0	.0 *	* *	.1 .1	.1 .1	.1 *	* *	.0	*	* .3	*	
1<2	0-3	* .0	* .0	* *	* *	* *	* *	* *	* *	.0	*	.1	*	
	4-10	* *	* *	* .1	* .1	* .1	* .1	* *	* *	.0	*	.4	*	
	11-21	* *	* .0	* .1	* .3	* .1	* *	* *	* *	.0	*	.6	*	
	22+	.0 *	* *	* .1	* .1	* *	* *	* *	* *	.0	*	.3	*	
	TOT %	* *	* *	* .3	* .5	* .3	* .1	* .1	* .0	*	* 1.3	*	*	
2<5	0-3	* *	* .0	* *	* *	* .0	* .0	* .0	* .0	.0	*	*	*	
	4-10	* *	* *	* *	* .1	* *	* .1	* *	* *	.0	*	.3	*	
	11-21	* *	* *	* *	* .1	* .1	* *	* *	* .1	.0	*	.4	*	
	22+	* *	* *	* *	* .1	* .1	* .1	* .1	* *	.0	*	.3	*	
	TOT %	.1 *	* *	* .2	* .3	* .2	* .2	* .1	* .0	*	* 1.0	*	*	
5<10	0-3	* *	* .1	* .1	* .2	* .1	* .1	* .1	* .1	.0	.1	1.0	*	
	4-10	.4 .7	* .8	* 1.5	* 2.5	* 2.4	* 1.4	* .7	* .0	.0	* 10.4	*	*	
	11-21	.3 .5	* .8	* 2.8	* 4.5	* 3.0	* 1.5	* .8	* .0	.0	* 14.3	*	*	
	22+	.2 .1	* .1	* 1.1	* 1.4	* 1.3	* .5	* .0	.0	.0	* 6.0	*	*	
	TOT %	.9 1.3	* 1.8	* 5.6	* 8.6	* 6.8	* 4.3	* 2.1	* .0	.1	* 31.6	*	*	
10+	0-3	.1 .1	* .2	* .2	* .3	* .3	* .2	* .2	* *	.6	2.2	*	*	
	4-10	.8 1.3	* 1.9	* 4.1	* 6.4	* 4.6	* 2.3	* 1.3	* .0	.0	* 22.7	*	*	
	11-21	.8 1.0	* 2.0	* 8.3	* 10.6	* 5.0	* 2.7	* 1.3	* .0	.0	* 31.6	*	*	
	22+	.2 .1	* .3	* 2.3	* 3.1	* 1.4	* 1.2	* .5	* .0	.0	* 9.2	*	*	
	TOT %	1.9 2.5	* 4.4	* 15.0	* 20.2	* 11.3	* 6.4	* 3.3	* *	.6	* 65.6	*	*	
TOT OBS														20380
TOT PCT														3.0 3.9 6.3 21.0 29.8 18.6 11.0 5.6 * .8 100.0

## ANNUAL

PERIOD: (PRIMARY) 1919-1972  
(OVER-ALL) 1854-1972AREA 0018 PERTH NW  
29.95 112.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL OBS	NH <5/8 ANY HGT	TOTAL OBS
00003	.2	.1	.6	4.5	15.0	11.4	6.1	1.8	.4	.5	40.6	59.4	2806
06009	.0	.1	.7	3.7	10.4	8.5	5.5	1.5	.4	.7	31.5	68.5	2776
12015	.2	.0	.5	4.2	11.0	7.9	3.8	1.2	.2	.4	29.5	70.5	2627
18021	.1	.0	.5	3.7	11.3	8.5	4.5	1.3	.4	.5	30.7	69.3	2660
TOT PCT	.1	*	.6	4.0	12.0	9.1	5.0	1.4	.3	.5	33.1	66.9	10869 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	.4	1.5	1.0	30.5	66.6	5485
06009	.1	.3	1.3	.7	30.3	67.2	4886
12015	.1	.5	1.8	1.5	36.0	60.1	5553
18021	.1	.2	.6	.7	30.2	68.3	4811
TOT PCT	.1	.3	1.3	1.0	31.9	65.4	20735 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.2	1.0	6.3	36.3	57.4	2687
06009	.0	.9	5.4	27.8	66.9	2651
12015	.3	.9	5.8	25.6	68.7	2486
18021	.1	.6	5.1	27.4	67.6	2527
TOT PCT	.1	.8	5.6	29.4	65.0	10351 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
65/89	.0	.0	*	*	*	*	.0	.0	*	*
60/84	.0	*	*	*	.1	.1	.1	*	.5	*
75/79	.0	*	*	.4	.8	1.9	1.4	.4	4.9	*
70/74	.0	.0	.2	1.2	3.5	6.3	7.1	3.3	21.8	*
65/69	.0	*	.3	2.9	7.9	11.5	9.9	3.6	36.2	*
60/64	.0	*	.4	2.9	10.2	9.1	5.4	1.7	29.7	*
55/59	.0	.0	*	.7	1.8	2.5	1.4	.4	6.8	*
50/54	.0	.0	.0	*	.0	.1	*	*	.1	*
45/49	.0	.0	.0	.0	.0	.0	*	*	*	*
TOTAL PCT	.0	.1	.9	8.1	24.4	31.7	25.3	9.5	14781	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	*	*	*	.0	.0	.0	*
*	*	.1	.1	.1	.1	*	*	.0	.0
.1	.2	.6	1.5	1.6	.4	.2	.2	.0	.1
.7	.9	1.4	5.7	8.1	2.7	1.1	1.1	.0	.1
1.3	1.4	2.0	7.5	11.4	6.0	3.8	2.4	*	.3
.6	1.2	1.9	5.0	7.0	7.3	4.6	1.7	*	.2
.1	.3	.6	.8	1.6	2.2	.9	.2	.0	*
*	*	*	*	*	*	*	.0	.0	.0
.0	.0	.0	.0	*	.0	.0	.0	.0	.0
2.9	4.0	6.5	20.6	30.0	18.8	10.6	5.6	*	.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	77	73	66	61	58	48	66.7	6254
06009	86	77	74	68	62	60	53	68.0	5871
12015	85	75	72	66	61	59	51	66.4	6292
18021	81	72	70	65	60	58	50	65.3	5586
TOT	86	76	73	66	61	58	48	66.6	24003

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	8.7	24.3	31.8	25.7	9.6	75	3920
06009	.0	14.5	29.4	31.3	18.7	6.0	71	3555
12015	.0	6.9	21.7	31.8	28.2	11.4	76	3981
18021	.0	6.6	21.6	31.6	28.9	11.2	76	3581
TOT	0	1385	3664	4747	3804	1437	74	15037

## ANNUAL

PERIOD: (PRIMARY) 1919-1972  
(OVER-ALL) 1854-1972

TABLE 17

AREA 0018 PERTH NW  
29.9S 112.7E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	49 52	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.0	.0	.0	*	.0	*	*	7	.0	.1
11/13	.0	.0	.0	.0	.0	*	*	.1	.1	*	28	.0	.2
9/10	.0	.0	.0	.0	*	*	.1	.2	.1	*	50	.0	.4
7/8	.0	.0	.0	.0	*	.1	.1	.3	.1	.0	77	*	.6
6	.0	.0	.0	*	*	.1	.3	.2	*	.0	80	.0	.6
5	.0	.0	*	*	.1	.2	.4	.3	*	*	135	.0	1.1
4	.0	.0	*	.1	.1	.4	.8	.3	*	.0	219	*	1.7
3	.0	.0	*	.2	.5	.9	1.3	.3	*	.0	403	*	3.1
2	.0	*	.1	.2	.8	1.7	1.4	.2	*	.0	551	.1	4.3
1	*	.0	.1	.6	1.9	2.6	1.6	.2	.0	.0	863	.1	6.8
0	.0	*	.2	1.4	3.6	3.9	1.5	.1	*	.0	1349	.1	10.7
-1	.0	.0	.4	2.3	4.2	3.9	.7	.1	.0	.0	1435	.1	11.4
-2	.0	*	.6	3.5	5.0	2.8	.4	*	.0	.0	1516	.1	12.2
-3	.0	*	.9	3.9	4.4	2.2	.2	*	.0	.0	1444	.1	11.5
-4	.0	*	1.3	4.1	3.2	1.1	.1	*	*	.0	1203	.1	9.7
-5	.0	.1	1.7	3.7	2.6	.6	*	.0	.0	.0	1064	*	8.6
-6	.0	.1	1.7	2.2	1.2	.3	*	.0	.0	.0	682	*	5.5
-7/-8	*	.3	2.3	2.5	1.1	.2	*	.0	.0	.0	782	*	6.4
-9/-10	*	.3	1.3	.9	.3	*	.0	.0	.0	.0	349	.0	2.9
-11/-13	*	.2	.5	.4	.1	*	.0	.0	.0	.0	144	.0	1.2
-14/-16	*	*	.1	*	*	.0	.0	.0	.0	.0	17	.0	.1
-17/-19	*	*	.0	.0	.0	.0	.0	.0	.0	.0	5	.0	*
TOTAL											12403		
PCT	.1	1.1	11.1	26.0	29.1	21.1	8.9	2.2	.4	.1	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
1-2	*	.2	.0	.0	.0	.0	.2	*	.1	.0	.0	.0	.0	.2
3-4	.0	.5	.2	.0	.0	.0	.8	*	1.0	.3	.0	.0	.0	1.4
5-6	.0	.3	.5	.0	.0	.0	.8	.0	.4	.7	.0	.0	.0	1.1
7	.0	.1	.4	.2	*	.0	.7	.0	.1	.5	*	.0	.0	.6
8-9	.0	*	.1	.1	.0	.0	.3	.0	*	.1	*	.0	.0	.2
10-11	.0	.0	*	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*
12	.0	.0	.0	.1	*	.0	.1	.0	.0	.0	*	.0	.0	*
13-16	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*	.0	.0	*
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	1.1	1.4	.4	.1	.0	3.1	.1	1.7	1.6	.2	.0	.0	3.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
1-2	.1	.3	.4	.0	.0	.0	1.7	.1	2.6	1.2	.0	.0	.0	3.9
3-4	.0	.6	1.8	*	.0	.0	2.4	*	1.5	3.9	.2	.0	.0	5.6
5-6	.0	.1	1.0	.1	.0	.0	1.2	.0	.2	4.0	.8	*	.0	5.0
7	.0	*	.3	.4	*	.0	.8	.0	.1	2.2	.9	*	.0	3.2
8-9	.0	.0	*	.1	.0	.0	.1	.0	*	.3	.8	*	.0	1.2
10-11	.0	.0	*	.0	.0	.0	*	.0	.0	.2	.4	*	.0	.6
12	.0	.0	*	.1	.0	.0	.1	.0	.0	*	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	*	.0	.0	*	.3	.2	.0	.5
17-19	.0	.0	.0	.0	.0	.0	*	.0	.0	*	.1	.0	.0	.2
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.1	.0	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	*
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	2.4	3.7	.6	.1	.0	7.0	.2	4.7	11.8	3.7	.4	.0	20.8

PERIOD: (OVER-ALL) 1963-1977

ANNUAL

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.2	.8	.*	.0	.0	.0	1.0	.2	.5	.*	.0	.0	.0	.9	
1-2	.1	4.2	1.6	.0	.0	.0	5.9	.1	3.2	.8	.0	.0	.0	4.1	
3-4	.0	2.5	5.5	.5	.0	.0	8.4	.*	2.0	3.3	.2	.0	.0	5.4	
5-6	.0	.4	6.1	1.7	.0	.0	8.2	.0	.2	2.2	.4	.*	.0	2.9	
7	.0	.1	2.0	1.4	.*	.0	3.6	.0	.*	.7	.5	.1	.0	1.3	
8-9	.0	.1	.9	.9	.1	.0	1.9	.0	.*	.2	.4	.1	.0	.7	
10-11	.0	.1	.1	.6	.1	.0	.8	.0	.*	.1	.2	.*	.0	.4	
12	.0	.0	.*	.2	.*	.0	.3	.0	.0	.*	.1	.*	.0	.1	
13-16	.0	.0	.*	.2	.*	.0	.3	.0	.*	.*	.1	.*	.0	.2	
17-19	.0	.0	.0	.1	.1	.0	.1	.0	.0	.*	.*	.*	.0	.1	
20-22	.0	.0	.*	.1	.1	.0	.1	.0	.0	.0	.0	.*	.0	.*	
23-25	.0	.0	.*	.0	.0	.0	.*	.0	.0	.0	.0	.*	.0	.*	
26-32	.0	.0	.0	.0	.*	.0	.*	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	8.2	16.2	5.6	.4	.0	30.6	.3	6.2	7.4	1.9	.4	.0	16.2	

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.1	.4	.0	.0	.0	.0	.5	.1	.3	.0	.0	.0	.0	.3		
1-2	.1	1.9	.7	.0	.0	.0	2.7	.1	.8	.4	.0	.0	.0	1.3		
3-4	.*	1.3	1.9	.2	.0	.0	3.5	.*	.5	1.0	.1	.0	.0	1.6		
5-6	.0	.3	1.6	.3	.*	.0	2.2	.0	.1	1.0	.2	.*	.0	1.4		
7	.0	.*	.6	.4	.1	.0	1.2	.0	.0	.3	.2	.*	.0	.5		
8-9	.0	.*	.1	.3	.1	.0	.6	.0	.0	.1	.2	.*	.0	.3		
10-11	.0	.0	.*	.3	.*	.0	.4	.0	.0	.*	.1	.*	.0	.2		
12	.0	.0	.*	.1	.*	.0	.1	.0	.0	.0	.1	.*	.0	.1		
13-16	.0	.0	.0	.3	.1	.0	.3	.0	.0	.*	.1	.*	.0	.1		
17-19	.0	.0	.*	.1	.*	.0	.1	.0	.0	.*	.*	.*	.0	.1		
20-22	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.*	.*	.0	.*		
23-25	.0	.0	.0	.0	.*	.0	.*	.0	.0	.0	.0	.*	.0	.*		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.2	3.9	5.2	2.0	.4	.*	11.8	.2	1.6	2.9	1.0	.2	.0	5.9	99.0	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.2	3.3	.1	.0	.0	.0	5.5	
1-2	.6	15.5	5.6	.0	.0	.0	21.8	
3-4	.1	8.9	18.5	1.3	.0	.0	28.8	
5-6	.0	1.6	16.7	3.6	.1	.0	22.0	
7	.0	.3	6.5	3.9	.3	.0	11.0	
8-9	.0	.2	1.8	2.7	.3	.0	4.9	
10-11	.0	.1	.4	1.8	.2	.0	2.5	
12	.0	.0	.1	.8	.1	.0	1.0	
13-16	.0	.*	.1	.9	.3	.0	1.4	
17-19	.0	.0	.*	.3	.2	.*	.6	
20-22	.0	.0	.*	.2	.2	.*	.4	
23-25	.0	.0	.*	.0	.*	.*	.1	
26-32	.0	.0	.0	.0	.1	.0	.1	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.0	29.6	49.8	15.5	1.8	.*	100.0	5247

PERIOD: (OVER-ALL) 1949-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.8	4.9	6.9	4.1	1.9	.9	.4	.2	.2	.*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1673	4
6-7	.*	.4	4.2	7.6	6.1	3.2	2.1	.7	.7	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	2075	6
8-9	.0	.1	1.1	4.2	6.1	3.8	3.0	1.6	1.5	.4	.3	.1	.*	.0	.0	.0	.0	.0	.0	1807	8
10-11	.0	.0	.6	1.6	2.8	2.9	2.3	1.4	1.7	.4	.3	.1	.1	.*	.0	.0	.0	.0	.0	1152	9
12-19	.0	.0	.3	.5	.8	1.0	1.0	.8	1.1	.2	.2	.1	.*	.0	.0	.0	.0	.0	.0	505	10
>13	.0	.0	.0	.1	.3	.3	.4	.5	.7	.1	.3	.*	.1	.0	.0	.0	.0	.0	.0	224	13
INDET	.8	.9	1.8	1.6	1.3	1.1	.7	.2	.3	.1	.1	.0	.*	.0	.0	.0	.0	.0	.0	737	6
TOTAL																				8173	7
PCT	1.6	6.5	14.9	19.7	19.4	13.1	10.0	5.4	6.2	1.5	1.1	.4	.3	.*	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1919-1972  
(OVER-ALL) 1854-1972

AREA 0018 PERTH NW  
29.95 112.7E

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
85/86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
83/84	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	*
81/82	.0	.2	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	9	*
79/80	.2	.3	.6	.4	.2	.2	.0	.0	.0	.0	.0	.1	37	.2
77/78	1.1	3.0	2.5	2.3	.7	.1	.0	.0	.0	.0	.0	.1	176	.9
75/76	3.6	8.8	8.8	9.0	5.0	1.3	.0	.0	.0	.1	.0	1.5	683	3.4
73/74	16.4	21.2	23.8	20.2	15.2	5.6	1.0	.6	.3	.3	.3	5.4	1951	9.7
71/72	30.9	34.3	33.5	29.4	23.1	14.0	5.5	2.5	1.0	1.1	3.6	13.0	3356	16.5
69/70	31.2	22.7	21.6	23.4	28.6	25.6	15.3	12.1	4.9	7.9	16.6	29.5	4076	20.1
67/68	12.5	7.5	6.9	10.9	16.5	23.9	29.6	23.1	22.2	25.3	38.1	32.9	4128	20.3
65/66	3.2	1.2	1.3	3.0	7.5	18.0	24.4	31.7	32.6	32.1	27.4	13.7	3216	15.9
63/64	.4	.5	.5	.9	2.1	8.0	16.0	19.6	24.5	22.8	11.3	3.0	1793	8.8
61/62	.3	.2	.1	.3	.7	2.1	5.4	7.2	10.2	7.3	1.9	.3	588	2.9
59/60	.1	.1	*	.1	.3	.9	2.3	2.2	2.7	2.3	.6	.3	196	1.0
57/58	.0	.0	.0	.1	.1	.1	.2	.7	1.0	.5	.1	.0	44	.2
55/56	.0	.0	.0	.0	.0	.1	.2	.1	.3	.4	.1	.0	18	.1
53/54	.0	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	4	*
51/52	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	2	*
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	1603	1610	2046	1843	1804	1712	1677	1591	1529	1746	1563	1564	20288	100.0
MEAN	70.6	71.6	71.6	71.2	70.1	68.1	66.4	65.7	65.0	65.4	66.8	68.6	68.4	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1014	1013	1013	1011	1012	1012	1012	1012	1013	1405
FEB	1013	1013	1013	1017	1013	1013	1012	1013	1013	1440
MAR	1016	1015	1015	1014	1015	1014	1015	1014	1015	1645
APR	1017	1017	1016	1017	1017	1017	1018	1017	1017	1612
MAY	1018	1018	1017	1017	1018	1017	1018	1016	1018	1650
JUN	1017	1017	1017	1016	1017	1017	1017	1017	1017	1571
JUL	1019	1019	1018	1017	1019	1018	1018	1016	1018	1447
AUG	1019	1020	1019	1018	1019	1018	1020	1018	1019	1420
SEP	1019	1018	1019	1017	1019	1017	1018	1017	1019	1379
OCT	1018	1017	1017	1017	1018	1017	1017	1016	1017	1505
NOV	1017	1016	1016	1016	1016	1015	1015	1015	1016	1316
DEC	1015	1014	1014	1013	1014	1013	1013	1012	1014	1289
ANN	1017	1016	1016	1015	1016	1016	1016	1015	1016	17679
OBS	3777	852	3255	1047	3766	870	3091	1081		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	1001	1004	1006	1010	1013	1015	1019	1021	1027
FEB	1000	1002	1006	1010	1013	1015	1019	1022	1030
MAR	999	1004	1008	1012	1015	1018	1021	1024	1029
APR	993	1004	1008	1014	1017	1020	1024	1026	1032
MAY	995	1001	1008	1015	1018	1022	1026	1029	1034
JUN	992	999	1005	1013	1018	1022	1026	1028	1033
JUL	995	1000	1006	1014	1019	1023	1028	1031	1037
AUG	999	1003	1003	1015	1020	1024	1028	1031	1036
SEP	1000	1004	1009	1015	1019	1022	1027	1029	1034
OCT	995	1002	1008	1015	1018	1021	1025	1027	1032
NOV	1004	1007	1010	1013	1016	1018	1022	1024	1027
DEC	997	1003	1007	1011	1014	1017	1020	1023	1027



PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1857-1969

JANUARY

AREA 0019 SHARK BAY  
25.05 111.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	15.4	.0	.0	.0	.0	.0	15.4	.0	.0	.0	.0	.0	.0	84.6
NE	.0	66.7	.0	.0	.0	.0	.0	66.7	.0	.0	.0	.0	.0	.0	33.3
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	1.2	.9	1.9	.0	.0	.0	.0	4.0	.6	1.1	.0	.0	3.4	.0	91.1
S	1.5	.1	.2	.0	.0	.0	.0	1.8	.2	.3	.0	.0	5.9	.0	90.4
SW	3.2	.0	.9	.0	.0	.0	.0	4.2	.2	.5	.0	.0	4.6	.0	90.5
W	2.6	.0	.0	.0	.0	.0	.0	2.6	2.6	.0	.0	.0	5.1	.0	88.6
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	50.0	.0	50.0
TOT PCT	1.7	.4	.6	.0	.0	.0	.0	2.7	.4	.5	.2	.0	5.9	.0	90.4
TOT OBS:	812														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	1.8	.5	.5	.0	.0	.0	.0	2.7	.9	.5	.0	.0	5.4	.0	90.0
06009	1.5	.0	.5	.0	.0	.0	.0	2.0	.0	.0	.5	.0	7.4	.0	90.1
12015	2.0	.5	.5	.0	.0	.0	.0	3.0	.0	.5	.5	.0	6.5	.0	89.5
18021	1.5	.5	1.0	.0	.0	.0	.0	3.1	.5	1.0	.0	.0	3.1	.0	92.3
TOT PCT	1.7	.4	.6	.0	.0	.0	.0	2.7	.4	.5	.2	.0	5.9	.0	90.4
TOT OBS:	815														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	.3	.1	.0	.0	.0		.5	7.2		.8	1.3	.5	.0	.0	.0	.7	.3
NE	.1	.1	.1	.0	.0	.0		.3	7.8		.5	1.3	.2	.0	.0	.0	.1	1.3
E	.0	.4	.2	.1	.0	.0		.7	13.4		1.2	.0	1.3	.5	.2	.0	.5	.6
SE	.2	3.3	11.5	6.1	.1	.0		21.1	17.3		23.2	9.0	24.1	17.8	16.2	13.5	22.6	28.8
S	.3	10.3	32.0	15.1	.2	.0		57.9	17.0		55.4	53.8	57.4	54.9	60.7	65.4	61.0	52.2
SW	.1	5.9	7.4	.9	.2	.0		14.5	12.7		14.1	24.4	11.7	19.6	17.8	13.5	11.9	10.5
W	.0	1.9	1.1	.0	.0	.0		3.0	9.9		2.6	5.1	3.4	3.1	4.3	.0	2.2	1.3
NW	.0	.9	.5	.0	.0	.0		1.4	9.8		1.5	2.6	1.4	2.1	.8	7.7	.5	2.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.6							.6	.0		.7	2.6	.0	2.1	.0	.0	.4	2.5
TOT OBS	19	317	726	306	6	0	1374		15.9		297	39	294	97	299	26	244	78
TOT PCT	1.4	23.1	52.8	22.3	.4	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00 03	06 09	12 15	18 21
N	.3	.1	*	.0	.0		.5	7.2	.9	.4	.0	.5
NE	.1	.1	*	.0	.0		.3	7.8	.6	.1	.0	.4
E	.1	.5	.1	.1	.0		.7	13.4	1.0	1.1	.2	.6
SE	1.0	7.5	11.2	1.4	.0		21.1	17.3	21.6	22.6	16.0	24.1
S	2.4	24.2	28.1	3.2	.0		57.9	17.0	55.2	56.8	61.1	58.9
SW	1.5	9.8	2.8	.3	.0		14.5	12.7	15.3	13.7	17.5	11.6
W	.6	2.4	.1	.0	.0		3.0	9.9	2.9	3.3	3.9	1.9
NW	.2	1.2	.0	.0	.0		1.4	9.8	1.6	1.5	1.4	1.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	.6				.0		.6	.0	.9	.5	.0	.9
TOT OBS	93	630	582	69	0	1374		15.9	336	391	325	322
TOT PCT	6.8	45.9	42.4	5.0	.0		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1857-1969

JANUARY

AREA 0019 SHARK BAY  
25.65 111.6E

TABLE 4

HOUR	CALM	WIND SPEED (KNOTS)							PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+	MEAN		
00003	.9	1.2	25.0	49.1	23.8	.0	.0	15.6	100.0	336
06009	.5	.5	20.7	56.5	20.7	1.0	.0	16.0	100.0	391
12015	.0	.9	24.6	52.0	22.2	.3	.0	16.1	100.0	325
18021	.9	.0	22.4	53.1	22.7	.3	.0	15.9	100.0	322
TOT	.8	1.1	31.7	72.6	30.6	.6	.0	15.9		1374
PCT	.6	.8	23.1	52.8	22.3	.4	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 6	TOTAL	MEAN CLOUD COVER
				OBS	OBS	
N	.2	.2	.2	.0		3.6
NE	.0	.0	.0	.0		.0
E	.4	.0	.3	.0		3.0
SE	5.2	3.0	6.8	3.7		4.6
S	25.3	13.9	16.8	6.1		3.5
SW	5.3	2.2	3.7	2.0		3.7
W	1.1	1.3	.8	.6		4.2
NW	.3	.1	.3	.0		3.9
VAR	.0	.0	.0	.0		.0
CALM	.2	.0	.0	.0		4.5
TOT OBS	25.1	13.7	19.1	8.2	661	3.8
TOT PCT	38.0	20.7	28.9	12.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	
SE	.0	.0	.1	1.2	2.7	1.4	2.5	.1	.0	.0	10.6	
S	.0	.0	.8	2.8	8.2	4.1	1.8	.4	.0	.3	43.8	
SW	.0	.0	.1	1.0	1.4	.7	.4	.0	.0	.0	9.7	
W	.0	.0	.0	.1	.6	.1	.0	.0	.1	.0	2.9	
NW	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
TOT OBS	0	0	6	34	85	43	31	3	1	2	456	661
TOT PCT	.0	.0	.9	5.1	12.9	6.5	4.7	.5	.2	.3	69.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.2	.6	.6	.6	.6	.6	.6	.6
>5000	.6	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>3500	4.4	5.8	5.8	5.8	5.8	5.8	5.8	5.8
>2000	10.2	12.1	12.3	12.3	12.3	12.3	12.3	12.3
>1000	17.9	23.8	25.0	25.0	25.0	25.0	25.0	25.0
>600	20.8	28.2	29.7	29.8	29.8	29.8	29.8	29.8
>300	21.2	28.8	30.5	30.8	30.8	30.8	30.8	30.8
>150	21.2	28.8	30.5	30.8	30.8	30.8	30.8	30.8
>0	21.2	28.8	30.5	30.8	30.8	30.8	30.8	30.8
TOTAL	140	190	201	203	203	203	203	203

TOTAL NUMBER OF OBS: 660

PCT FREQ NH <5/8: 69.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	TOTAL
									OBS	OBS
	18.9	13.6	13.1	12.6	10.2	5.1	8.7	6.8	10.9	704

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1857-1969

JANUARY

AREA 0019 SHARK BAY  
25.65 111.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	PCP	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.5	
	NO PCP	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	.7	
2<5	PCP	.0	.0	.0	.2	.3	.2	.0	.0	.0	.0	.6	
	NO PCP	.0	.0	.0	.4	1.7	.5	.1	.0	.0	.0	2.7	
	TOT %	.0	.0	.0	.5	2.0	.6	.1	.0	.0	.0	3.3	
5<10	PCP	.0	.0	.0	.5	.5	.3	.1	.0	.0	.0	1.4	
	NO PCP	.0	.0	.0	5.7	12.7	1.9	1.3	.1	.0	.1	21.9	
	TOT %	.0	.0	.0	6.2	13.1	2.2	1.4	.1	.0	.1	23.2	
10+	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.3	*	.5	12.6	46.1	10.3	2.0	.4	.0	.1	72.5	
	TOT %	.3	*	.5	12.6	46.1	10.4	2.0	.4	.0	.1	72.6	
TOT OBS													810
TOT PCT		.4	.1	.5	19.7	61.7	13.3	3.5	.6	.0	.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	*	*	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
	11-21	*	*	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	*	.5	.0	.0	.0	.0	.0	.5	
	TOT %	*	*	.0	*	.7	.1	.0	.0	.0	.0	1.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.0	.0	.0	.1	.9	1.0	.1	.1	.0	.2	2.2	
	11-21	.0	.0	.0	.6	2.2	.7	.0	.2	.0	.3	3.7	
	22+	.0	.0	*	.1	1.4	.1	.0	.0	.0	.1	1.7	
	TOT %	.0	.0	*	.9	4.5	1.7	.1	.2	.0	.2	7.7	
2<5	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	*	.2	.0	.1	.1	.0	.4	.4	
	11-21	.0	.0	.0	.2	.5	.2	.0	.0	.0	.9	.9	
	22+	.0	.0	.0	.1	.7	.3	.0	.0	.0	1.1	1.1	
	TOT %	.0	.0	.0	.4	1.4	.5	.1	.1	.0	2.5	2.5	
5<10	0-3	*	*	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	*	.0	.0	.5	2.6	1.9	.6	.5	.0	6.2	6.2	
	11-21	.0	.0	*	4.4	9.0	2.2	.6	.1	.0	16.3	16.3	
	22+	.0	.0	.1	2.2	6.5	.4	.0	.0	.0	9.1	9.1	
	TOT %	.1	*	.1	7.1	17.9	4.5	1.2	.6	.0	23.1	23.1	
10+	0-3	.1	.0	.0	.2	.3	*	.0	.0	.0	.2	.7	
	4-10	.2	.0	.3	2.3	6.2	3.2	1.1	.3	.0	13.5	13.5	
	11-21	.1	*	.1	5.4	20.2	4.1	.6	.2	.0	30.8	30.8	
	22+	.0	.0	.0	3.3	8.1	.5	.0	.0	.0	11.9	11.9	
	TOT %	.3	*	.4	11.2	34.7	7.7	1.8	.6	.0	25.5	25.5	
TOT OBS													1203
TOT PCT		.4	.1	.6	19.7	49.3	14.5	3.2	1.5	.0	.6	100.0	

## JANUARY

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1857-1969

AREA 0019 SHARK BAY  
25.65 111.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	1.1	5.3	18.0	6.3	4.8	.5	1.1	.5	37.6	62.4	189
06009	.0	.0	1.7	5.6	4.5	7.9	2.8	.0	.0	.0	22.6	77.4	177
12015	.0	.0	.6	4.9	12.8	4.3	3.0	1.2	.0	.6	27.4	72.6	164
18021	.0	.0	.0	3.8	13.9	6.3	7.6	.0	.0	.0	31.6	68.4	158
TOT PCT	0 .0	0 .0	6 .9	34 4.9	85 12.4	43 6.3	51 4.5	3 .4	2 .3	2 .3	206 29.9	482 70.1	688 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	2.2	8.3	2.2	26.3	60.9	312
06009	.0	.3	9.9	2.3	31.0	56.4	303
12015	.3	1.3	8.2	2.3	33.3	54.6	306
18021	.0	.3	4.5	3.1	37.4	54.7	289
TOT PCT	1 .1	13 1.1	94 7.8	30 2.5	386 31.9	686 56.7	1210 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGFS OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	1.1	8.7	30.1	61.2	183
06009	.0	1.8	10.9	16.4	72.7	165
12015	.0	.6	6.2	21.7	72.0	161
18021	.0	.0	6.6	26.5	66.9	151
TOT PCT	0 .0	6 .9	54 8.2	157 23.8	449 68.0	660 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.1	.7	.2	.0	.0	9	1.0
80/84	.0	.0	.0	.2	1.5	1.4	2.0	.1	46	5.2
75/79	.0	.0	.0	.6	2.4	8.9	12.8	7.1	281	31.6
70/74	.0	.0	.0	.5	5.2	11.2	24.3	11.4	465	52.7
65/69	.0	.0	.0	.5	.9	2.5	4.4	1.0	82	9.3
TOTAL	0	0	0	16	94	214	385	174	883	100.0
PCT	.0	.0	.0	1.8	10.6	24.2	43.6	19.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.1	.4	.2	.1	.2	.0	.1
80/84	.3	.0	.2	.5	2.3	1.1	.5	.1	.0	.2
75/79	.1	.1	.4	4.6	17.6	6.7	1.4	1.0	.0	.0
70/74	.0	.0	.1	9.3	35.5	6.4	.8	.4	.0	.1
65/69	.0	.0	.0	2.8	5.8	.5	.1	.2	.0	.0
TOTAL	.4	.1	.7	17.3	61.6	14.9	2.9	1.8	.0	.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	87	84	79	73	69	68	67	73.8	332
06009	90	87	83	75	70	68	67	75.5	371
12015	89	84	81	74	69	67	65	74.0	320
18021	82	80	77	72	68	66	61	72.3	320
TOT	90	85	81	73	69	67	61	74.0	1343

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	.8	10.5	21.8	46.6	20.2	82	238		
06009	.0	3.7	18.7	34.7	32.9	10.0	78	219		
12015	.0	1.3	7.6	24.4	42.2	24.4	83	225		
18021	.0	1.5	5.9	15.1	53.2	24.4	83	205		
TOT	0	16	95	214	387	175	81	887		

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1857-1969

JANUARY

AREA 0019 SHARK BAY  
25.65 111.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT FOG	N FOG	NO FOG
11/13	.0	.0	.0	.0	.2	.0	.2	2	.0	.3
9/10	.0	.0	.0	.0	.8	.5	.0	8	.0	1.3
7/8	.0	.0	.0	.3	.5	.2	.2	7	.0	1.1
6	.0	.0	.0	.5	.3	.2	.0	6	.0	1.0
5	.0	.0	.3	1.5	.3	.2	.0	14	.0	2.3
4	.0	.3	1.5	1.1	.5	.0	.0	21	.0	3.4
3	.0	.2	1.6	2.8	.7	.0	.0	32	.0	5.2
2	.0	.8	4.3	2.6	.5	.3	.0	52	.0	8.5
1	.0	3.1	6.1	2.0	.3	.0	.0	70	.0	11.5
0	.2	4.4	8.2	2.9	.5	.0	.0	99	.0	16.2
-1	.2	6.5	7.5	1.5	.2	.0	.0	97	.0	15.9
-2	.0	7.9	5.1	.7	.0	.0	.0	83	.3	13.3
-3	.5	3.8	3.3	.3	.0	.0	.0	48	.0	7.9
-4	.7	3.4	2.1	.2	.0	.0	.0	39	.0	6.4
-5	.2	1.5	1.0	.0	.0	.0	.0	15	.0	2.5
-6	.2	.7	.5	.0	.0	.0	.0	8	.0	1.3
-7/-8	.0	.5	.7	.0	.0	.0	.0	7	.0	1.1
-9/-10	.3	.0	.0	.0	.0	.0	.0	2	.0	.3
-11/-13	.0	.2	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	13	207	257	100	8	2	2	611	2	609
PCT	2.1	33.1	42.1	16.4	4.7	1.3	.3	100.0	.3	99.7

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.2	.0	.0	.0	.2	.0	1.1	1.9	.1	.0	.0	3.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	1.3	.0	.0	3.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.8	.0	.0	1.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.1	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.6
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.2	.0	.0	.0	.2	.0	1.8	5.8	3.7	.1	.0	11.3



PERIOD: (OVER-ALL) 1963-1969

JANUARY

TABLE 18 (CONT)

AREA 0019 SHARK BAY  
25.65 111.6F

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.6	.0	.0	.0	.0		.0	.7	.0	.0	.0	.0	.0		.7
1-2	.0	4.3	1.4	.0	.0	.0		.0	2.7	.6	.0	.0	.0	.0		3.3
3-4	.0	3.9	17.8	1.8	.0	.0		.0	1.3	3.8	.2	.0	.0	.0		5.3
5-6	.0	.3	12.9	9.5	.0	.0		.0	.3	1.9	.8	.5	.0	.0		3.4
7	.0	.0	3.8	6.3	.2	.0		.0	.0	.3	.3	.1	.0	.0		.6
8-9	.0	.0	1.3	3.5	.2	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.8	1.7	.0	.0		.0	.0	.8	.1	.0	.0	.0		.8
12	.0	.0	.0	.2	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.4	.2	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.0	9.1	38.3	23.1	.4	.0		71.0	.0	5.0	7.2	1.3	.6	.0		14.2

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.2	.0	.0	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0	
1-2	.0	.4	.0	.0	.0	.0		.4	.0	.1	.0	.0	.0	.0		.1	
3-4	.0	.8	.4	.0	.0	.0		1.3	.0	.0	.3	.0	.0	.0		.3	
5-6	.0	.0	1.1	.0	.0	.0		1.1	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	1.5	1.5	.0	.0	.0		3.0	.0	.1	.3	.0	.0	.0		.3	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	.0	1.5	.0	.0	.0	.0	1.5	
1-2	.0	8.2	3.1	.0	.0	.0	11.3	
3-4	.0	7.2	24.4	2.1	.0	.0	33.6	
5-6	.0	.5	18.2	11.5	.5	.0	30.8	
7	.0	.0	4.4	7.4	.3	.0	12.1	
8-9	.0	.0	1.3	4.1	.3	.0	5.6	
10-11	.0	.0	1.5	2.1	.0	.0	3.6	
12	.0	.0	.0	.8	.0	.0	.8	
13-16	.0	.0	.5	.3	.0	.0	.8	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	17.4	53.3	28.2	1.0	.0	100.0	390

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	.7	3.1	5.7	4.7	1.8	.7	.4	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	103	4
6-7	.0	.0	2.5	7.4	10.0	7.3	1.5	1.6	1.8	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	179	7
8-9	.0	.4	.5	3.6	9.3	6.7	2.0	2.5	1.3	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	147	8
10-11	.0	.4	.0	.7	4.2	1.6	.5	2.2	1.8	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	64	9
12-13	.0	.0	.2	.0	.2	.9	.9	.5	.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	11
13-14	.0	.0	.0	.2	.0	.0	.0	.4	.4	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	13
15-16	.4	.0	.4	2.5	1.1	.2	.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30	6
TOTAL	6	21	57	106	146	96	32	42	36	5	4	0	0	0	0	0	0	0	0	0	551	7
PCT	1.1	3.8	10.3	19.2	26.5	17.4	5.8	7.6	6.5	.9	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

## FEBRUARY

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1867-1969

AREA 0019 SHARK BAY  
25.55 111.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.3	.0	.0	.0	.0	85.7
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	3.4	.0	.0	.0	93.1
E	4.9	4.9	.0	.0	.0	.0	.0	9.9	.0	.0	3.7	.0	.0	.0	86.4
SE	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.3	.8	.0	2.5	.0	95.2
S	.0	.3	.2	.0	.0	.0	.0	.4	.2	1.1	1.6	.0	8.0	.0	88.7
SW	1.4	.0	.3	.0	.0	.0	.0	1.7	1.7	2.1	.3	.0	13.4	.0	80.7
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.6	.0	.0	.0	.0	86.4
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19.0	.0	.0	.0	81.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.3	.0	.0	.0	.0	85.7
TOT PCT	.3	.3	.1	.0	.0	.0	.0	.7	.6	1.3	1.4	.0	5.6	.0	89.4
TOT OBS:	696														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FDG WD PCPN	FDG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.5	5.8	.0	92.1
06009	.0	.0	.6	.0	.0	.0	.0	.6	.0	.0	1.1	.0	9.6	.0	88.8
12015	.6	1.2	.0	.0	.0	.0	.0	1.8	.6	1.2	1.2	.0	7.9	.0	87.2
18021	.6	.0	.0	.0	.0	.0	.0	.6	1.8	4.1	1.8	.0	3.0	.0	88.8
TOT PCT	.3	.3	.1	.0	.0	.0	.0	.7	.6	1.3	1.4	.1	5.6	.0	89.3
TOT OBS:	701														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	.3	.0	.0	.0	.0		.5	4.7		.6	.0	1.1	.0	.3	.0	.3	.0
NE	.5	.5	.1	.0	.0	.0		.7	8.7		1.2	.0	.9	1.0	.4	.0	.3	.9
E	.1	1.5	.8	.1	.0	.0		2.4	10.2		4.3	4.4	3.0	1.4	.9	1.2	1.9	1.9
SE	.5	4.9	15.4	4.1	.2	.0		25.1	15.6		29.2	17.1	30.4	18.3	19.9	11.6	27.6	25.2
S	.8	7.7	34.8	12.2	.3	.0		55.7	16.7		53.3	57.0	51.6	56.7	58.5	68.6	56.3	57.5
SW	.5	5.0	5.8	.9	.1	.0		12.2	12.5		9.4	15.4	10.3	20.2	16.1	15.1	10.4	7.5
W	.1	1.2	.1	.0	.0	.0		1.4	8.5		1.4	3.1	1.1	.5	1.6	1.2	.2	4.7
NW	.2	.7	.1	.1	.0	.0		1.0	8.4		.3	3.1	1.3	1.0	1.2	2.3	1.1	.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.8							.8	.0		.4	.0	.4	1.0	1.1	.0	1.8	.9
TOT OBS	43	299	778	237	8	0	1365		15.3		282	57	271	104	276	43	225	107
TOT PCT	3.2	21.9	57.0	17.4	.6	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	.4	.1	.0	.0	.0	.0		.5	4.7	.5	.8	.2	.2
NE	.2	.5	.0	.0	.0	.0		.7	8.7	1.0	.9	.3	.5
E	.7	1.5	.3	.0	.0	.0		2.4	10.2	4.3	2.5	.9	1.9
SE	1.7	10.6	12.2	.6	.0			25.1	15.6	27.1	27.0	18.8	27.1
S	3.3	21.5	28.4	2.4	.1			55.7	16.7	53.9	53.0	59.9	56.7
SW	2.2	6.6	3.2	.2	.1			12.2	12.5	10.4	13.1	16.0	9.5
W	.6	.8	.0	.0	.0			1.4	8.5	1.7	.9	1.6	1.7
NW	.5	.5	.1	.0	.0			1.0	8.4	.7	1.2	1.3	.9
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0
CALM	.8							.8	.0	.3	.5	.9	1.5
TOT OBS	141	574	603	44	3	1365		15.3		339	375	319	332
TOT PCT	10.3	42.1	44.2	3.2	.2			100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1867-1969

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AREA 0019 SHARK BAY  
25.55 111.6F

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	.3	2.7	25.4	56.6	14.5	.6	.0	14.9	100.0	339
06009	.5	2.7	19.7	58.7	17.6	.8	.0	15.4	100.0	375
12015	.9	2.8	20.1	55.2	20.7	.3	.0	15.8	100.0	319
18021	1.5	1.2	22.6	57.2	16.9	.6	.0	15.2	100.0	332
TOT	11	32	299	778	737	8	0	15.3		1965
PCT	.8	2.3	21.9	57.0	17.4	.6	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & E	TOTAL	MEAN CLOUD COVER
				OBS	OBS	
N	.3	.3	.2	.0		3.5
NE	.4	.3	.5	.0		3.1
E	1.5	.3	.6	.0		2.4
SE	11.4	4.6	7.6	2.5		3.5
S	24.5	13.4	13.5	5.5		3.4
SW	4.2	2.1	3.1	.9		3.6
W	.2	.0	.2	.0		3.2
NW	.2	.2	.0	.2		3.6
VAR	.0	.0	.0	.0		.0
CALM	.7	.2	.3	.0		2.5
TOT OBS	264	130	158	55	607	3.4
TOT PCT	43.5	21.4	26.0	9.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2
E	.0	.0	.0	.0	.0	.0	.2	.2	.0	.0	.0	2.1
SE	.0	.0	.1	.9	3.3	1.6	1.5	.5	.1	.2	18.0	
S	.0	.2	1.9	6.3	3.9	1.9	.7	.1	.0	41.9		
SW	.0	.0	.2	.7	.9	.3	.3	.3	.0	.0	7.7	
W	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.4	
NW	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	1.0	
TOT OBS	0	0	3	21	64	37	24	10	1	1	446	507
TOT PCT	.0	.0	.5	3.5	10.5	6.1	4.0	1.6	.2	.2	73.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.2	.3	.3	.3	.3	.3	.3	.3
>5000	1.6	2.0	2.0	2.0	2.0	2.0	2.0	2.0
>3500	5.4	5.9	5.9	5.9	5.9	5.9	5.9	5.9
>2000	10.0	12.0	12.0	12.0	12.0	12.0	12.0	12.0
>1000	16.1	21.3	22.6	22.6	22.6	22.6	22.6	22.6
>800	18.9	24.5	26.0	26.0	26.0	26.0	26.0	26.0
>300	19.1	24.9	26.4	26.5	26.5	26.5	26.5	26.5
>150	19.1	24.9	26.4	26.5	26.5	26.5	26.5	26.5
>0	19.1	24.9	26.4	26.5	26.5	26.5	26.5	26.5
TOTAL	116	151	160	161	161	161	161	161

TOTAL NUMBER OF OBS: 507

PCT FREQ NH <5/8: 73.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	TOTAL
									OBS
25.7	16.3	13.1	9.6	7.9	5.3	7.9	6.5	7.6	643

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PERIOD: (PRIMARY: 1923-1969  
(OVER-ALL) 1867-1969AREA 0019 SHARK BAY  
25.55 111.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.2	.1	.4	.0	.0	.0	.0	.7	.7
	TOT %	.0	.0	.0	.2	.1	.4	.0	.0	.0	.0	.7	.7
2<5	PCP	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.3	.3
	NO PCP	.0	.0	.0	.9	1.3	.2	.0	.0	.0	.1	2.6	2.6
	TOT %	.0	.0	.0	.9	1.4	.4	.0	.0	.0	.1	2.9	2.9
5<10	PCP	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	.1
	NO PCP	.1	.1	.5	5.2	9.3	1.7	.2	.2	.0	.6	18.9	18.9
	TOT %	.1	.1	.6	5.2	9.3	1.7	.2	.2	.0	.6	19.0	19.0
10+	PCP	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.3	.3
	NO PCP	.6	1.0	2.1	18.0	45.7	8.0	.6	.5	.0	.3	76.9	76.9
	TOT %	.6	1.0	2.3	18.0	45.9	8.0	.6	.5	.0	.3	77.2	77.2
TOT OBS													693
TOT PCT		.8	1.0	2.9	25.4	56.9	10.4	.8	.8	.0	1.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.4	.4
	22+	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.4	.4
	TOT %	.0	.0	.0	.0	.7	.1	.0	.0	.0	.0	.8	.8
1<2	0-3	.0	.0	.0	*	*	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.1	.7	.4	.1	.0	.0	.0	1.2	1.2
	11-21	.0	.0	.0	.5	2.2	.7	.0	.0	.0	.0	3.5	3.5
	22+	.0	.0	.0	.2	2.7	.4	.0	.0	.0	.0	3.3	3.3
	TOT %	.0	.0	.0	.8	5.6	1.6	.1	.0	.0	.0	8.1	8.1
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.0	.1	.3	*	.0	.0	.0	.0	.4	.4
	11-21	.0	.0	.0	.5	1.1	.3	.0	.0	.0	.0	1.9	1.9
	22+	.0	.0	.0	.0	.2	*	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.5	1.6	.4	.0	.0	.0	.1	2.6	2.6
5<10	0-3	.0	.0	.0	.1	.3	.1	*	.1	.0	.4	1.1	1.1
	4-10	.2	.1	.7	1.2	1.8	.8	.4	.4	.0	.0	5.5	5.5
	11-21	.0	.0	.3	4.1	9.4	1.9	.0	.0	.0	.0	15.6	15.6
	22+	.0	.0	.0	1.6	4.7	.4	.0	.0	.0	.0	6.7	6.7
	TOT %	.2	.1	.9	7.0	16.1	3.1	.4	.5	.0	.4	28.8	28.8
10+	0-3	.1	*	.1	.5	.5	.4	.0	*	.0	.2	1.9	1.9
	4-10	.2	.5	1.0	3.1	5.3	3.5	.4	.3	.0	.0	14.3	14.3
	11-21	.0	.1	.4	9.9	22.8	2.5	.1	.1	.0	.0	35.9	35.9
	22+	.0	.0	.0	2.0	5.3	.1	.0	.1	.0	.0	7.5	7.5
	TOT %	.4	.6	1.5	15.5	34.0	6.6	.5	.5	.0	.2	59.7	59.7
TOT OBS													1138
TOT PCT		.5	.7	2.4	23.9	58.0	11.8	1.0	1.0	.0	.7	100.0	

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1867-1969

# FEBRUARY

AREA 0019 SHARK BAY  
25.55 111.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.6	4.7	11.8	6.5	2.9	1.8	.0	.0	28.2	71.8	170
06009	.0	.0	.6	2.4	9.4	4.7	2.9	1.8	.6	.0	22.4	77.6	170
12015	.0	.0	.0	3.4	8.8	4.1	4.1	.7	.0	.7	21.6	78.4	148
18021	.0	.0	.7	2.9	10.7	8.6	5.7	2.1	.0	.0	30.7	69.3	140
TOT	0	0	3	21	64	37	24	10	1	1	161	467	628
PCT	.0	.0	.5	3.3	10.2	5.9	3.8	1.6	.2	.2	25.6	74.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.7	8.5	2.6	27.5	60.8	306
06009	.0	1.1	7.9	2.5	25.7	62.9	280
12015	.0	.4	9.8	3.2	29.5	57.2	285
18021	.0	1.1	6.2	2.2	32.6	58.0	276
TOT	0	9	93	30	330	685	1147
PCT	.0	.8	8.1	2.6	28.8	59.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.6	7.8	22.3	69.9	166
06009	.0	.6	4.3	19.5	76.1	163
12015	.0	.0	6.9	16.6	76.6	145
18021	.0	.8	6.8	27.1	66.2	133
TOT	0	3	39	129	439	607
PCT	.0	.5	6.4	21.3	72.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.2	.1	.0	.0	.0	.0	.0	3	.3
85/89	.0	.0	.0	.0	.7	.5	.0	.0	10	1.2
80/84	.0	.0	.1	.2	1.3	3.6	3.2	.9	81	9.4
75/79	.0	.0	.1	.3	3.1	10.7	17.1	8.0	339	39.3
70/74	.0	.0	.0	.2	4.6	14.4	19.4	9.2	412	47.8
65/69	.0	.0	.0	.0	.5	.7	.3	.5	17	2.0
TOTAL	0	2	3	7	88	257	345	160	862	100.0
PCT	.0	.2	.3	.8	10.2	29.8	40.0	18.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.0	.2	.1	.0	.0	.0	.0	.0
.1	.0	.1	.3	.5	.2	.0	.0	.0	.0
.4	.7	.8	2.1	3.8	.9	.1	.4	.0	.1
.2	.1	1.5	8.6	22.4	5.6	.3	.1	.0	.6
.0	.0	.1	11.1	30.5	4.7	.6	.6	.0	.2
.0	.0	.0	.8	1.1	.1	.0	.0	.0	.0
.7	1.0	2.5	23.1	58.3	11.5	.9	1.2	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	94	86	82	75	70	68	66	75.2	337
06009	91	88	84	76	72	71	68	77.0	366
12015	94	85	82	74	70	69	67	74.9	318
18021	92	81	79	73	69	67	64	73.5	327
TOT	94	87	82	75	70	68	64	75.2	1348

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	1.3	10.5	33.1	37.7	17.6	81	239
06009	.0	3.3	20.6	39.2	28.2	8.6	76	209
12015	.0	.5	6.5	22.7	49.5	20.8	83	215
18021	.0	.5	3.9	23.7	43.5	28.5	84	207
TOT	0	12	90	259	346	164	81	871



## FEBRUARY

PERIOD: (PRIMARY) 1927-1969  
(OVER-ALL) 1897-1969

TABLE 17

AREA 0019 SHARK BAY  
25.55 111.6EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
11/13	.0	.0	.0	.0	.2	.3	.0	.3	5	.0	.9
9/10	.0	.0	.0	.0	.2	.3	.0	.0	3	.0	.5
7/8	.0	.0	.3	.2	.9	.3	.0	.0	10	.2	1.6
6	.0	.0	.3	1.0	.3	.2	.0	.0	11	.0	1.9
5	.0	.0	.5	1.5	.7	.7	.0	.0	16	.0	2.8
4	.0	.2	.5	1.9	1.2	.2	.0	.0	23	.0	4.0
3	.0	.3	1.9	1.9	.7	.2	.0	.0	29	.0	5.0
2	.0	.2	2.8	3.5	1.4	.2	.0	.0	46	.0	8.0
1	.0	.5	5.2	4.5	.5	.2	.0	.0	63	.2	10.8
0	.3	1.7	9.2	4.0	1.2	.0	.0	.0	95	.3	16.2
-1	.0	3.1	9.9	3.3	.3	.0	.0	.0	96	.2	16.5
-2	.2	4.2	6.6	1.4	.5	.0	.0	.0	74	.0	12.9
-3	.3	2.3	3.0	.9	.2	.0	.0	.0	38	.0	6.6
-4	.0	3.1	2.3	.5	.2	.0	.0	.0	35	.0	6.1
-5	.0	1.2	1.7	.0	.2	.0	.0	.0	18	.2	3.0
-6	.0	.3	.2	.0	.0	.0	.0	.0	3	.0	.5
-7/-8	.2	.0	.9	.2	.0	.0	.0	.0	7	.0	1.2
-9/-10	.0	.2	.2	.0	.0	.0	.0	.0	2	.2	.2
TOTAL	6	100	262	139	50	16	0	2	575	7	568
PCT	1.0	17.4	45.6	24.2	8.7	2.8	.0	.3	100.0	1.2	98.8

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.2	.0	.0	.0	.0	.7	.1	.8	.0	.0	.0	.0	.8
1-2	.0	.3	.0	.0	.0	.0	.3	.0	.8	.0	.0	.0	.0	.8
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	.5	.0	.0	.0	.0	1.0	.1	1.5	.0	.0	.0	.0	1.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.7	.4	.3	.0	.0	.0	1.4
1-2	.0	1.9	.0	.0	.0	.0	1.9	.0	1.5	1.9	.0	.0	.0	3.3
3-4	.0	.0	.2	.0	.0	.0	.2	.0	1.0	3.9	.1	.0	.0	4.0
5-6	.0	.0	.8	.0	.0	.0	.8	.0	.1	4.9	.9	.0	.0	5.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	2.5	.0	.0	4.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.2	.3	.0	1.5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.1	1.0	.0	.0	.0	3.1	.7	2.9	13.6	3.9	.3	.0	21.5

PERIOD: (OVER-ALL) 1963-1969

FEBRUARY

AREA 0019 SHARK BAY  
25.55 111.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.8	.5	.0	.0	.0	.0		1.4	.9	.0	.0	.0	.0	.0		.9
1-2	.0	4.2	1.2	.0	.0	.0		5.3	.0	2.9	.1	.0	.0	.0		2.9
3-4	.0	2.7	16.0	.5	.0	.0		19.3	.0	.9	2.1	.0	.0	.0		3.0
5-6	.0	.5	14.4	3.1	.0	.0		20.0	.0	.3	1.7	.0	.0	.0		2.0
7	.0	.0	4.6	3.1	.3	.0		7.9	.0	.0	.1	.0	.0	.0		.1
8-9	.0	.0	2.1	3.2	.0	.0		5.2	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.5	1.3	.0	.0		1.8	.0	.0	.1	.0	.0	.0		.1
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.8	7.9	40.7	11.2	.3	.0		61.0	.9	4.1	4.0	.0	.0	.0		9.0

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0		.0	.1	.3	.0	.0	.0	.0		.4	
1-2	.0	.3	.0	.0	.0	.0		.3	.0	.3	.0	.0	.0	.0		.3	
3-4	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	.3	.0	.0	.0	.0		.3	.1	.6	.0	.0	.0	.0		.7	98.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.2	2.5	.3	.0	.0	.0	8.0	
1-2	.3	12.0	3.1	.0	.0	.0	15.3	
3-4	.0	4.6	22.1	.6	.0	.0	27.3	
5-6	.0	.9	23.6	4.0	.0	.0	28.5	
7	.0	.0	6.1	5.5	.3	.0	12.0	
8-9	.0	.0	3.1	3.4	.3	.0	6.7	
10-11	.0	.0	.6	1.5	.0	.0	2.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.5	19.9	58.9	15.0	.6	.0	100.0	326

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.4	3.5	5.9	3.7	2.9	.2	.4	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	88	4
6-7	.0	.0	5.7	8.5	7.3	2.3	2.1	1.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	138	6
8-9	.0	.2	1.0	5.2	6.7	5.8	5.2	2.3	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	133	8
10-11	.0	.0	.6	1.7	1.5	4.4	2.5	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	53	8
12-13	.0	.0	.4	.2	.4	1.2	1.0	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	8
>13	.0	.0	.0	.2	.6	1.0	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	8
INDET	.8	.0	2.3	1.7	.8	1.2	.2	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	5
TOTAL	6	18	86	102	97	78	57	23	11	3	0	0	0	0	0	0	0	0	0	481	6
PCT	1.2	3.7	17.9	21.2	20.2	16.2	11.9	4.6	2.3	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1949  
(OVER-ALL) 1855-1949

MARCH

AREA 0019 SHARK BAY  
25.55 111.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	.0	13.8	.0	.0	.0	.0	.0	13.8	.0	.0	.0	.0	.0	.0	86.2
NE	.0	.0	9.6	.0	.0	.0	.0	9.6	.0	.0	.0	.0	.0	.0	90.4
E	.0	.0	9.3	.0	.0	.0	.0	9.3	.0	.0	.0	.0	.0	.0	90.7
SE	.6	.6	.1	.0	.0	.0	.0	1.2	.0	.1	.0	.0	5.6	.0	93.0
S	.4	.0	.2	.0	.0	.0	.0	.6	.0	.6	.2	.0	7.3	.0	91.2
SW	.4	.4	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	4.4	.0	94.9
W	.0	3.3	.0	.0	.0	.0	.0	3.3	.0	.0	.0	.0	.0	.0	96.7
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.4	.4	.7	.0	.0	.0	.0	1.4	.0	.4	.1	.0	5.8	.0	92.2
TOT OBS:	760														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRIG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00003	.4	.9	.9	.0	.0	.0	.0	2.2	.0	.0	.4	.0	5.6	.0	.0	91.8
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.1	.0	.0	93.9
12015	1.0	.5	.5	.0	.0	.0	.0	2.0	.0	1.0	.0	.0	7.3	.0	.0	89.8
18021	.6	.0	1.2	.0	.0	.0	.0	1.8	.0	.6	.0	.0	3.7	.0	.0	93.9
TOT PCT	.5	.4	.7	.0	.0	.0	.0	1.6	.0	.4	.1	.0	5.8	.0	.0	92.1
TOT OBS:	764															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	.3	.3	.0	.0	.0		.8	9.2		.5	.7	.2	.9	1.3	1.4	.8	1.1
NE	.6	.4	.5	.0	.0	.0		1.6	7.4		2.6	4.8	1.1	1.8	.9	1.4	.9	1.5
E	.8	2.0	1.3	.1	.1	.0		4.2	9.9		5.9	6.3	4.8	4.0	2.9	2.9	2.7	5.0
SE	.4	4.8	14.7	6.3	.7	.0		26.9	17.1		28.1	19.5	27.3	25.0	22.4	17.1	32.7	32.3
S	.7	10.7	31.4	8.2	.7	.0		51.7	15.4		50.2	48.9	50.9	48.5	56.2	55.7	51.9	47.7
SW	.3	4.7	4.6	.6	.0	.0		10.3	12.1		7.9	9.6	11.4	16.4	11.4	10.0	8.0	9.5
W	.3	1.6	.7	.1	.0	.0		2.7	9.4		1.6	4.8	2.0	2.7	3.2	10.0	2.9	2.5
NW	.5	.7	.3	.0	.0	.0		1.4	6.9		2.3	5.5	1.6	.9	1.2	1.4	.1	.2
VAR	.0	.0	.0	.0	.0	1.0		.5	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.5							.5	.0		1.0	.0	.7	.0	.5	.0	.0	.0
TOT OBS	61	365	782	222	22	0	1452		14.8		299	68	277	113	317	35	233	110
TOT PCT	4.2	25.1	53.0	13.3	1.5	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	.4	.3	.1	.0	.0	.0		.8	9.2	.5	.4	1.3	.9
NE	.9	.4	.2	.0	.0	.0		1.6	7.4	3.0	1.3	.9	1.1
E	1.7	1.6	.7	.1	.0	.0		4.2	9.9	5.9	4.6	2.9	3.4
SE	1.5	11.1	11.6	2.5	.1	.0		26.9	17.1	26.5	26.7	21.9	32.6
S	3.5	27.2	18.5	2.4	.0	.0		51.7	15.4	49.9	50.2	56.1	50.6
SW	1.9	5.5	2.8	.1	.0	.0		10.3	12.1	8.2	12.8	11.2	8.5
W	.7	1.7	.3	.0	.0	.0		2.7	9.4	2.2	2.2	3.8	2.8
NW	.7	.7	.0	.0	.0	.0		1.4	6.9	2.9	1.4	1.2	.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	.5					.0		.5	.0	.8	.5	.6	.0
TOT OBS	173	705	498	75	1	1452		14.8		367	390	352	343
TOT PCT	11.9	48.6	34.3	5.2	.1		100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1855-1969

MARCH

AREA 0019 SHARK BAY  
25.55 111.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.6	.5	6.9	
NE	.4	.0	.2	.2	4.0	
E	1.3	.4	.7	.1	3.0	
SE	12.1	3.9	5.5	1.7	2.9	
S	33.0	11.7	10.5	2.4	2.6	
SW	5.4	2.4	2.6	.2	2.7	
W	1.0	.3	.7	.1	3.2	
NW	.8	.0	.4	.3	3.2	
VAR	.0	.0	.0	.0	.0	
CALM	.2	.0	.2	.0	.0	
TOT OBS	288	100	114	30	532	2.8
TOT PCT	54.1	18.8	21.4	5.6	100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.6	.5	6.9	
NE	.4	.0	.2	.2	4.0	
E	1.3	.4	.7	.1	3.0	
SE	12.1	3.9	5.5	1.7	2.9	
S	33.0	11.7	10.5	2.4	2.6	
SW	5.4	2.4	2.6	.2	2.7	
W	1.0	.3	.7	.1	3.2	
NW	.8	.0	.4	.3	3.2	
VAR	.0	.0	.0	.0	.0	
CALM	.2	.0	.2	.0	.0	
TOT OBS	288	100	114	30	532	2.8
TOT PCT	54.1	18.8	21.4	5.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.3	.0	.1	.0	.0	.0	.0	.6
.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.6
.0	.0	.0	.1	.0	.1	.0	.0	.2	.2	.1	1.8
.0	.0	.0	.1	.8	2.0	1.1	.8	.0	.1	.1	18.4
.0	.0	.2	.5	3.6	4.3	.7	.1	.2	.2	.4	47.9
.0	.0	.0	.0	.8	.7	.4	.0	.0	.2	.5	8.6
.0	.0	.0	.0	.3	.0	.0	.0	.0	.1	.1	1.7
.0	.0	.0	.2	.2	.0	*	.0	.0	*	.9	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.1	.5	.0	.0	.0	.0	.0	.0	.4	
.0	.0	.2	.9	6.0	7.3	2.4	.9	.4	.9	80.8	532
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	* OR >10	* OR >5	* OR >2	* OR >1	* OR >1/2	* OR >1/4	* OR >50YD	* OR >0
* OR >6500	1.1	1.3	1.3	1.3	1.3	1.3	1.3	1.3
* OR >5000	2.1	2.3	2.3	2.3	2.3	2.3	2.3	2.3
* OR >3500	4.5	4.7	4.7	4.7	4.7	4.7	4.7	4.7
* OR >2000	10.3	11.8	12.0	12.0	12.0	12.0	12.0	12.0
* OR >1000	16.1	17.8	18.0	18.0	18.0	18.0	18.0	18.0
* OR >500	16.7	18.8	18.9	18.9	18.9	18.9	18.9	18.9
* OR >300	16.7	18.8	19.1	19.1	19.1	19.1	19.1	19.1
* OR >150	16.7	18.8	19.1	19.1	19.1	19.1	19.1	19.1
* OR >0	16.7	18.8	19.1	19.1	19.1	19.1	19.1	19.1
TOTAL	89	100	102	102	102	102	102	102

TOTAL NUMBER OF OBS: 533

PCT FREQ NH <5/8: 80.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
27.1	20.7	12.7	11.6	8.2	5.4	5.2	4.3	4.8	560

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1853-1969

MARCH

AREA 0019 SHARK BAY  
25.55 111.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.3	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0	.5	
	TOT %	.0	.0	.0	.3	.2	.0	.0	.0	.0	.0	.5	
2<5	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.1	.0	.0	.4	1.2	.1	.0	*	.0	.0	1.8	
	TOT %	.1	.0	.0	.5	1.2	.1	.0	*	.0	.0	2.0	
5<10	PCP	.0	*	.2	.2	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.1	.2	.7	4.6	5.8	.9	.1	.3	.0	.0	12.6	
	TOT %	.1	.2	.9	4.8	5.8	.9	.1	.3	.0	.0	13.0	
10+	PCP	.1	.1	.0	.0	.2	.1	.1	.0	.0	.0	.7	
	NO PCP	.6	1.4	2.6	18.1	48.3	7.9	2.8	1.6	.0	.3	83.5	
	TOT %	.7	1.5	2.6	18.1	48.5	8.0	2.9	1.6	.0	.3	84.2	
TOT OBS													
TOT PCT													
		1.0	1.7	3.6	23.8	55.8	9.0	3.0	1.9	.0	.3	100.0	759

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.1	.3	*	.0	.0	.0	.0	.4	
	TOT %	.0	.0	.0	.1	.4	*	.0	.0	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.2	*	.0	.0	.0	.0	.4	
	11-21	.0	.1	.0	.4	1.5	.1	.0	.0	.0	.0	2.0	
	22+	.0	.0	.0	.2	.9	.1	.0	.0	.0	.0	1.2	
	TOT %	.0	.2	.0	.5	2.6	.3	.0	.0	.0	.0	3.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.1	.0	.1	.3	.3	.1	.0	*	.0	.0	.8	
	11-21	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.5	
	22+	.0	.0	.0	.1	.3	.0	.0	.0	.0	.0	.4	
	TOT %	.1	.0	.1	.3	1.1	.1	.0	*	.0	.0	1.7	
5<10	0-3	.1	.1	.2	*	.1	*	.1	.1	.0	.1	.8	
	4-10	.1	.1	.9	1.3	2.3	1.2	.3	.2	.0	.0	6.3	
	11-21	.1	.3	.3	5.0	7.0	1.5	.3	.1	.0	.0	14.5	
	22+	.0	.0	*	3.2	2.3	.1	.0	.0	.0	.0	5.7	
	TOT %	.3	.5	1.4	9.5	11.7	2.8	.6	.4	.0	.1	27.3	
10+	0-3	.0	.7	.3	.1	.6	.3	.3	.4	.0	.2	2.8	
	4-10	.2	.3	1.0	3.2	8.1	3.4	1.0	.5	.0	.0	17.7	
	11-21	.3	.2	1.0	9.8	24.5	2.6	.6	.2	.0	.0	39.3	
	22+	.0	.0	.0	2.9	3.8	.3	.0	.0	.0	.0	6.9	
	TOT %	.5	1.1	2.3	16.1	37.0	6.5	1.9	1.2	.0	.2	66.8	
TOT OBS													
TOT PCT													
		.8	1.8	3.9	26.5	52.9	9.8	2.5	1.6	.0	.3	100.0	1197



PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1855-1969

MARCH

AREA 0019 SHARK BAY  
25.55 111.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.0	.0	1.5	6.6	11.8	3.7	1.5	.0	1.5	26.5	73.5	136
06009	.0	.0	.0	.7	3.7	6.7	2.2	2.2	.7	.7	17.0	83.0	135
12015	.0	.0	.8	.0	4.5	3.0	.8	.0	.0	.8	9.8	90.2	132
18021	.0	.0	.0	1.3	8.1	6.7	2.7	.0	.7	.7	20.1	79.9	149
TOT	0	0	1	5	32	39	13	5	2	5	102	450	552
PCT	.0	.0	.2	.9	5.8	7.1	2.4	.9	.4	.9	18.5	81.5	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NH) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL
(GMT)							OBS
00003	.3	.6	5.2	1.2	10.1	73.6	330
06009	.0	.4	2.8	1.1	32.0	63.7	281
12015	.3	.6	3.8	3.8	27.8	63.8	320
18021	.0	.4	2.5	.7	32.6	63.8	276
TOT	2	6	44	21	332	802	1207
PCT	.2	.5	3.6	1.7	27.5	66.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HR	<150	<600	<1000	1000+	NH <5/8	TOTAL
(GMT)	<500	<1	<5	AND 5+	AND 5+	OBS
00003	.0	.0	1.5	25.4	73.1	134
06009	.0	.0	.8	16.8	82.4	131
12015	.0	.8	1.6	9.3	89.1	129
18021	.0	.0	2.2	19.4	78.4	139
TOT	0	1	8	95	430	533
PCT	.0	.2	1.5	17.8	80.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL	PCT
									OBS	FREQ
90/94	.1	.0	.0	.0	.0	.0	.0	.0	1	.1
85/89	.0	.0	.0	.2	.2	.0	.0	.0	6	.7
80/84	.0	.0	.1	.1	2.5	3.4	2.2	.7	77	9.0
75/79	.0	.0	.0	.7	3.3	13.3	14.4	6.6	327	38.3
70/74	.0	.0	.1	.4	6.3	12.9	17.7	7.1	380	44.5
65/69	.0	.0	.0	.2	.6	2.1	1.1	1.3	45	5.3
60/64	.0	.0	.0	.0	.0	.2	1.3	.5	17	2.0
55/59	.0	.0	.0	.0	.0	.0	.0	.1	1	.1
TOTAL	1	0	2	14	110	275	313	139	854	100.0
PCT	.1	.0	.2	1.6	12.9	32.2	36.7	16.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
.0	.0	.0	.2	.4	.1	.0	.0	.0	.0
.2	.3	.2	1.5	4.9	1.3	.3	.4	.0	.0
.3	.6	1.6	9.4	20.6	4.1	1.1	.5	.0	.1
.2	.2	1.2	13.1	24.3	4.0	.9	.5	.0	.1
.0	.2	.5	1.1	1.7	.7	.8	.3	.0	.0
.0	.4	.2	.2	.6	.1	.4	.1	.0	.0
.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
.7	1.6	3.7	25.4	52.5	10.5	3.5	1.8	.0	.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL
(GMT)									OBS
00003	91	85	81	75	65	61	59	74.5	358
06009	88	86	83	76	71	69	69	76.5	366
12015	87	84	82	74	69	62	61	74.6	343
18021	82	82	78	73	69	67	66	73.2	335
TOT	91	85	82	74	69	63	59	74.8	1402

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL
(GMT)								OBS
00003	.4	2.5	12.3	33.5	33.9	17.4	80	236
06009	.0	3.7	20.9	38.7	28.3	8.4	76	191
12015	.0	.4	9.2	29.3	43.7	17.5	81	229
18021	.0	1.0	10.2	28.3	39.0	21.5	81	205
TOT	1	16	111	278	314	141	80	861

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1855-1969

MARCH

AREA 0019 SHARK BAY  
25.55 111.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT FOG	W FOG	WO FOG
14/16	.0	.0	.0	.0	.5	.0	.0	.2	4	.0	.7
11/13	.0	.0	.0	.0	.2	.0	.0	.0	1	.0	.2
9/10	.0	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
7/8	.0	.0	.0	1.4	.2	.2	.9	.0	15	.0	2.6
6	.0	.0	.2	.3	.0	.7	.3	.0	9	.0	1.6
5	.0	.0	.2	.2	1.0	1.0	.3	.0	16	.0	2.8
4	.0	.0	.0	.7	.7	1.6	.7	.0	21	.0	3.6
3	.0	.0	.3	1.2	2.1	.7	.0	.0	25	.0	4.3
2	.0	.0	1.0	2.2	2.1	.9	.2	.0	37	.0	6.4
1	.0	.0	.9	6.4	4.3	.9	.0	.0	72	.0	12.5
0	.0	.0	2.2	8.0	5.4	.5	.0	.0	93	.2	15.9
-1	.0	.2	1.6	9.2	3.1	.7	.0	.0	85	.0	14.7
-2	.0	.0	2.8	6.1	1.9	.3	.0	.0	64	.0	11.1
-3	.0	.3	3.5	5.2	1.0	.2	.0	.0	59	.0	10.2
-4	.0	.0	2.4	2.4	.5	.0	.0	.0	31	.0	5.4
-5	.0	.0	2.8	1.2	.3	.0	.0	.0	25	.0	4.3
-6	.2	.2	.3	.9	.0	.0	.0	.0	9	.0	1.6
-7/-8	.0	.2	.5	.9	.2	.0	.0	.0	10	.0	1.7
-11/-13	.0	.0	.2	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	1	5	109	267	136	44	15	1	578	1	577
PCT	.2	.9	18.9	46.2	23.5	7.6	2.6	.2	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.6	.0	.0	.0	.6	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.6	.0	.0	.0	.6	.0	.0	.1	.0	.0	.0	.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3
1-2	.0	.5	.0	.0	.0	.0	.5	.0	2.1	2.2	.0	.0	.0	4.3
3-4	.0	.2	.2	.0	.0	.0	.5	.0	1.1	5.2	.4	.0	.0	6.8
5-6	.0	.0	.9	.0	.0	.0	.9	.0	.1	4.8	1.1	.0	.0	6.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	2.0	.0	.0	3.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.3	.0	2.4
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.2	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.7	1.1	.0	.0	.0	1.9	.3	3.3	13.7	6.8	.3	.0	24.4

PERIOD: (OVER-ALL) 1963-1969

MARCH

AREA 0019 SHARK BAY  
25.55 111.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.3	1.2	.0	.0	.0	.0		1.5	.0	.4	.0	.0	.0	.0		.4
1-2	.0	4.8	3.3	.0	.0	.0		8.1	.0	3.1	1.1	.0	.0	.0		4.2
3-4	.0	4.2	16.5	.2	.0	.0		21.0	.0	2.3	1.1	.0	.0	.0		3.4
5-6	.0	1.2	11.4	2.1	.0	.0		14.7	.0	.0	.8	.0	.0	.0		.8
7	.0	.0	4.8	1.5	.0	.0		6.4	.0	.0	.9	.1	.0	.0		1.0
8-9	.0	.0	1.7	1.0	.0	.0		2.7	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	1.0	.6	.0	.0		1.5	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.2	1.1	.0	.0		1.4	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.2	.0	.0		.2	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.3	.0	.0	.0		.3
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.3	11.5	38.9	6.8	.0	.0		57.6	.0	5.8	4.2	.1	.0	.0		10.1

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
1-2	.0	.9	.7	.0	.0	.0		1.5	.0	.7	.0	.0	.0	.0		.7	
3-4	.0	.2	.7	.0	.0	.0		.9	.3	.0	.0	.0	.0	.0		.3	
5-6	.0	.0	.2	.0	.0	.0		.2	.0	.0	.7	.0	.0	.0		.7	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.3	.0	.0	.0		.3	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	1.1	1.9	.0	.0	.0		3.0	.3	.7	.7	.0	.0	.0		1.7	99.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	1.3	1.6	.0	.0	.0	.0	2.9	
1-2	.0	12.1	7.2	.0	.0	.0	19.2	
3-4	.3	8.1	23.8	.7	.0	.0	32.9	
5-6	.0	1.3	19.5	3.3	.0	.0	24.1	
7	.0	.0	6.8	3.6	.0	.0	10.4	
8-9	.0	.0	2.0	1.0	.0	.0	2.9	
10-11	.0	.0	1.0	2.6	.3	.0	3.9	
12	.0	.0	.3	1.3	.0	.0	1.6	
13-16	.0	.0	.3	1.3	.0	.0	1.6	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.3	.0	.0	.0	.3	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.6	23.1	61.2	13.7	.3	.0	100.0	307

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.2	3.4	8.0	5.3	1.8	1.6	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.93	4
6-7	.0	.9	6.9	10.3	6.4	1.8	1.8	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	127	6
8-9	.0	.2	.7	4.6	7.6	4.6	1.4	2.1	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	97	8
10-11	.0	.0	.0	3.0	5.0	2.1	2.7	.5	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	59	8
12-13	.0	.0	.5	.7	1.1	.5	.9	1.1	1.8	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	31	10
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
INDPT	.2	.2	.9	1.8	1.6	.9	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	6
TOTAL	2	21	74	112	103	50	37	20	15	0	1	2	0	0	0	0	0	0	0	437	6
PCT	.5	4.8	16.9	25.6	23.6	11.4	8.5	4.6	3.4	.0	.2	.5	.0	.0	.0	.0	.0	.0	.0	100.3	

APRIL

PERIOD: (PRIMARY) 1917-1969  
(OVER-ALL) 1859-1969AREA 0019 SHARK BAY  
25.55 111.5E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
N	6.7	.0	13.3	.0	.0	.0	.0	20.0	.0	.0	.0	.0	.0	.0	80.0
NE	4.5	.0	.0	.0	.0	.0	.0	4.5	4.5	.0	.0	.0	.0	.0	91.0
E	3.5	.0	2.0	.0	.0	.0	.0	5.5	.0	1.0	.0	.0	1.5	.0	92.0
SE	.8	.0	.4	.0	.0	.0	.0	1.2	.4	.9	.4	.0	.8	.0	96.3
S	.4	.7	.0	.0	.0	.0	.0	1.1	.4	.3	.0	.0	1.1	.0	97.1
SW	.6	2.9	.0	.0	.0	.0	.0	3.5	1.2	.3	.0	.0	.0	.0	95.0
W	1.5	1.5	.0	.0	.0	.0	.0	2.9	2.2	.0	.0	.0	.0	.0	94.9
NW	2.4	.0	.0	.0	.0	.0	.0	2.4	6.1	.0	.0	.0	.0	.0	91.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.0	.0	.0	5.0	.0	90.0
TOT PCT	1.0	.6	.4	.0	.0	.0	.0	2.1	.8	.6	.1	.0	.9	.0	95.5
TOT OBS:	779														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
00603	.4	.4	.4	.0	.0	.0	.0	1.3	.9	.4	.0	.0	.9	.0	96.4
06009	.5	1.0	.5	.0	.0	.0	.0	2.1	.5	.0	.3	.0	1.5	.0	95.4
12015	1.9	.5	.0	.0	.0	.0	.0	2.3	.9	.9	.0	.0	.5	.0	95.3
18021	1.9	.6	.6	.0	.0	.0	.0	3.1	.6	1.2	.0	.0	.6	.0	94.4
TOT PCT	1.1	.6	.4	.0	.0	.0	.0	2.1	.8	.6	.1	.0	.9	.0	95.5
TOT OBS:	794														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.2	.4	.5	.0	.0	.0	1.1	9.2	1.2	2.9	2.1	.0	.5	.0	1.4	.7		
NE	.1	1.4	.6	.2	.0	.0	2.2	10.3	3.0	4.3	2.2	.0	1.2	2.2	1.7	4.5		
E	.6	2.7	2.8	.5	.0	.0	6.5	11.7	7.5	11.4	9.3	4.6	4.5	4.3	3.7	7.8		
SE	.9	10.3	17.9	6.1	.2	.0	35.3	14.5	41.1	24.6	35.0	34.0	31.4	23.9	36.9	39.5		
S	1.5	11.4	17.9	4.1	*	.0	35.0	13.3	29.0	41.1	30.0	41.2	39.2	60.3	35.5	31.0		
SW	.4	5.3	5.1	.4	.0	.0	11.1	10.7	10.0	7.1	10.9	11.1	15.4	8.2	9.6	9.5		
W	.5	1.8	1.7	.2	.0	.0	4.2	10.6	3.6	4.3	6.2	5.7	3.9	1.1	3.4	3.6		
NW	.2	1.7	1.2	.0	.0	.0	3.0	9.6	2.3	4.3	3.7	2.7	2.9	.0	3.8	2.5		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	1.5						1.5	.0	2.3	.0	.7	.8	.8	.0	4.2	.7		
TOT OBS	99	575	783	187	4	0	1648		34.1	70	304	131	365	46	238	153		
TOT PCT	6.0	34.9	47.5	11.3	.2	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.4	.6	.1	.0	.0		1.1	9.2	1.5	1.4	.5	1.1
NE	.9	1.2	.0	.0	.0		2.2	10.3	3.2	1.6	1.3	2.8
E	1.7	2.9	1.8	.1	.0		6.5	11.7	8.2	7.9	4.6	5.3
SE	4.9	16.4	12.1	1.9	.0		35.3	14.5	38.3	34.7	30.5	37.9
S	5.9	17.5	10.6	1.0	.0		35.0	13.3	31.1	33.4	41.6	33.8
SW	3.1	6.5	1.5	.1	.0		11.1	10.7	9.5	10.9	14.6	9.5
W	1.5	1.7	.8	.1	.0		4.2	10.6	3.7	6.0	3.6	3.5
NW	.8	2.0	.3	.0	.0		3.0	9.6	2.7	3.4	2.8	3.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.5						1.5	.0	1.9	.7	.7	2.8
TOT OBS	339	803	450	56	0	1648		12.8	411	435	411	391
TOT PCT	20.6	48.7	27.3	3.4	.0		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1917-1949  
(OVER-ALL) 1859-1949

APRIL

AREA 0019 SHARK BAY  
25.55 111.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

			WIND SPEED (KNOTS)							TOTAL
HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	OBS
00003	1.9	5.1	36.3	46.5	10.0	.2	.0	12.3	100.0	411
06009	.7	4.6	38.9	45.5	10.3	.0	.0	12.5	100.0	435
12015	.7	5.4	34.8	46.7	12.4	.0	.0	12.9	100.0	411
18021	2.8	2.8	29.2	51.7	12.8	.8	.0	13.6	100.0	391
TOT	25	74	575	783	187	4	0	12.8		1648
PCT	1.5	4.5	34.9	47.5	11.3	.2	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL DBS	MEAN CLOUD COVER
N	.2	.1	.8	.2		5.5
NE	1.7	.6	.2	.4		2.6
E	1.3	.5	1.3	1.9		5.1
SE	16.0	5.3	10.0	2.8		3.3
S	14.8	8.1	8.9	1.9		3.2
SW	3.5	5.3	3.2	.5		3.6
W	1.4	1.6	1.7	.3		4.0
NW	.4	.9	.9	.1		4.3
VAR	.0	.0	.0	.0		.0
CALM	1.7	.7	.6	.2		2.9
TOT DBS	221	125	149	44		540
TOT PCT	40.9	23.3	27.6	8.1		100.0

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	DBS
.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	.8	
.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	2.8	
.0	.0	.0	.4	.9	.5	.1	.0	.0	.3	2.7	
.0	.0	.2	1.0	2.8	2.1	.8	1.0	.0	.2	25.9	
.0	.0	.2	.8	2.9	1.9	.5	.2	.2	.5	26.7	
.0	.0	.0	.4	.6	.9	.3	.3	.0	.1	10.0	
.0	.0	.0	.0	.2	.4	.0	.0	.0	.0	4.4	
.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	1.9	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.2	.0	.2	.0	.0	.4	.0	2.4	
.0	.0	2	15	42	34	10	8	3	7	419	
.0	.0	.4	2.8	7.8	6.3	1.9	1.5	.6	1.3	77.6	
										100.0	

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >5000	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
OR >4000	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
OR >3500	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
OR >2000	10.7	11.2	11.2	11.2	11.2	11.2	11.2	11.2
OR >1000	17.9	18.6	18.8	18.8	18.8	18.8	18.8	18.8
OR >600	19.9	21.5	21.7	21.7	21.7	21.7	21.7	21.7
OR >300	20.3	21.9	22.1	22.1	22.1	22.1	22.1	22.1
OR >150	20.3	21.9	22.1	22.1	22.1	22.1	22.1	22.1
OR >0	20.3	21.9	22.1	22.1	22.1	22.1	22.1	22.1
TOTAL	112	121	122	122	122	122	122	122

TOTAL NUMBER OF DBS: 553

PCT FREQ NH <5/8: 77.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	DBS	TOTAL
22.9	18.1	14.5	13.2	8.6	5.8	6.4	5.1	5.4	.0	607



PERIOD: (PRIMARY) 1917-1969  
(OVER-ALL) 1859-1969

APRIL

AREA 0019 SHARK BAY  
25.55 111.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
2<5	PCP	.0	.0	.1	*	.0	.0	.0	.0	.0	.0	.1	.1
	NO PCP	.0	.0	.0	.3	.4	.1	.0	.0	.0	.0	.8	.8
	TOT %	.0	.0	.1	.3	.4	.1	.0	.0	.0	.0	.9	.9
5<10	PCP	.1	.1	.0	.1	.3	.2	.1	.1	.0	.0	.9	.9
	NO PCP	.1	.4	.7	5.4	4.0	.7	.5	.4	.0	.3	12.5	12.5
	TOT %	.2	.5	.7	5.5	4.3	.9	.5	.5	.0	.3	13.4	13.4
10+	PCP	.1	.0	.3	.3	.1	.2	.1	.0	.0	.0	1.0	1.0
	NO PCP	.7	2.3	5.3	28.7	29.7	9.7	3.8	2.1	.0	2.3	84.6	84.6
	TOT %	.8	2.3	5.6	28.9	29.8	9.9	3.9	2.1	.0	2.3	85.6	85.6
TOT OBS													779
TOT PCT		1.0	2.9	6.4	34.9	34.4	10.9	4.4	2.6	.0	2.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.1	.0	.0	.1	.1	.0	.0	.0	.0	.3	.3
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.0	.0	.1	.1	.0	.0	.0	.0	.3	.3
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	*	.0	.0	.1	.2	.0	.0	*	.0	.0	.3	.3
	11-21	.0	.0	.0	.3	.2	.1	.0	.0	.0	.0	.6	.6
	22+	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.2	.2
	TOT %	*	.0	.0	.4	.6	.2	.0	*	.0	.0	1.2	1.2
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.1	.1	.1	.1	.0	.0	.0	.0	.3	.3
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.1	.2	.2	.1	.0	.0	.0	.0	.6	.6
5<10	0-3	.1	.0	.3	.1	*	.1	*	.1	.0	.2	.9	.9
	4-10	.1	.5	.8	2.4	3.4	1.3	.5	.6	.0	.0	9.6	9.6
	11-21	.1	.5	.7	7.0	8.2	1.8	.3	.1	.0	.0	18.7	18.7
	22+	.0	.0	.3	2.2	2.1	.1	.0	.0	.0	.0	4.7	4.7
	TOT %	.3	1.0	2.1	11.7	13.7	3.2	.9	.7	.0	.2	33.9	33.9
10+	0-3	.1	.1	.4	.7	1.3	.4	.5	.2	.0	1.5	5.2	5.2
	4-10	.2	1.1	2.1	8.6	8.5	3.1	1.2	.8	.0	.0	25.5	25.5
	11-21	.3	.2	1.5	9.8	11.4	3.6	1.2	.4	.0	.0	28.3	28.3
	22+	.0	.2	.0	2.9	1.6	.1	.2	.0	.0	.0	5.1	5.1
	TOT %	.6	1.6	4.0	21.9	22.9	7.1	3.1	1.4	.0	1.5	64.1	64.1
TOT OBS													1267
TOT PCT		.9	2.7	6.2	34.2	37.5	10.7	4.0	2.1	.0	1.7	100.0	

APRIL

PERIOD: (PRIMARY) 1917-1969  
(OVER-ALL) 1859-1969

AREA 0019 SHARK BAY  
25.55 111.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	0/0	1/0	3/0	6/0	10/0	20/0	35/0	50/0	65/0	80/0+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
0000	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.0	.7	3.9	7.8	5.9	2.0	2.0	.7	1.3	24.2	75.8	153
06009	.0	.0	.6	1.9	6.8	7.5	1.9	1.9	.0	1.2	21.7	78.3	161
12015	.0	.0	.0	.7	9.1	3.5	2.1	.7	.7	.7	17.5	82.5	143
18021	.0	.0	.0	4.5	4.5	6.0	.7	.7	.7	1.5	18.7	81.3	134
TOT	0	0	2	16	42	34	10	8	3	7	122	469	591
PCT	.0	.0	.3	2.7	7.1	5.8	1.7	1.4	.5	1.2	20.6	79.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.3	.6	.0	30.5	68.6	354
06009	.0	.0	2.0	.0	26.6	71.5	305
12015	.0	.0	2.3	1.7	37.5	58.6	355
18021	.0	1.1	.7	.4	42.1	55.8	285
TOT	0	4	18	7	442	828	1299
PCT	.0	.3	1.4	.5	34.0	63.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.7	4.8	20.5	74.7	146
06009	.0	.7	2.7	20.7	76.7	150
12015	.0	.0	3.0	17.3	79.7	133
18021	.0	.0	5.6	15.3	79.0	124
TOT	0	2	22	103	428	553
PCT	.0	.4	4.0	18.6	77.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.1	.5	.2	.2	.1	11	1.1
80/84	.0	.0	.2	.4	1.5	2.6	2.0	1.2	79	7.9
75/79	.0	.0	.2	1.7	4.5	12.3	11.6	5.6	359	36.0
70/74	.0	.1	.8	2.5	11.5	14.8	11.4	4.2	452	45.4
65/69	.0	.0	.3	1.2	2.3	2.2	2.2	.8	90	9.0
60/64	.0	.0	.0	.0	.3	.1	.1	.0	5	.5
TOTAL	0	1	15	59	206	321	275	119	996	100.0
PCT	.0	.1	1.5	5.9	20.7	32.2	27.6	11.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.1	.0	.3	.5	*	.0	.1	.0	.0
.1	.4	.6	2.6	2.8	1.0	.1	.2	.0	.2
.4	1.2	3.5	10.3	13.2	3.9	1.4	1.4	.0	.7
.4	.9	2.2	16.8	16.9	4.8	2.3	.5	.0	.6
.2	.1	.3	3.9	3.1	1.1	.2	.1	.0	.2
.0	.0	.1	.1	.2	.1	.0	.0	.0	.0
1.1	2.7	6.7	34.1	36.5	11.0	4.0	2.2	.0	1.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	86	81	74	68	65	64	74.0	405
06009	89	86	84	75	69	66	60	75.7	428
12015	86	83	81	74	69	66	62	74.2	408
18021	83	80	78	72	67	65	60	72.4	382
TOT	89	85	81	74	68	65	60	74.1	1623

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	8.8	18.0	30.0	30.0	13.1	76	283
06009	.0	12.5	27.2	34.9	20.3	5.2	72	232
12015	.0	3.9	16.5	36.6	27.1	15.8	78	784
18021	.0	5.5	20.9	25.0	33.2	15.5	78	220
TOT	0	77	207	325	282	128	76	1019

APRIL

PERIOD: (PRIMARY) 1917-1969  
(OVER-ALL) 1859-1969AREA 0019 SHARK BAY  
25.55 111.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT FOG	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.0	.2	.2		2	.0	.3
9/10	.0	.0	.0	.0	.0	.2	.7	.0		5	.0	.9
7/8	.0	.0	.0	.0	.0	.5	.7	.0		11	.0	1.9
6	.0	.0	.0	.0	.5	.2	.5	.0		10	.0	1.7
5	.0	.0	.0	.2	.3	.3	1.4	.2	.0	14	.0	2.4
4	.0	.0	.0	.2	.2	1.4	.9	.0	.0	15	.0	2.6
3	.0	.0	.0	.0	1.2	1.7	1.2	.0	.0	24	.0	4.2
2	.0	.0	.2	.3	.9	4.0	.7	.2	.0	36	.2	6.1
1	.0	.0	.2	.9	2.3	5.0	.5	.0	.0	51	.0	8.9
0	.0	.0	.3	2.8	6.6	3.6	1.0	.0	.0	83	.0	14.4
-1	.0	.0	.3	1.6	5.9	2.8	.7	.0	.0	65	.0	11.3
-2	.0	.0	.3	3.5	6.9	2.1	.0	.0	.0	74	.0	12.8
-3	.0	.0	1.0	3.0	4.2	1.4	.2	.0	.0	56	.0	9.7
-4	.0	.0	1.0	4.0	3.0	.5	.0	.0	.0	49	.0	8.5
-5	.0	.2	.9	3.5	2.8	.9	.0	.0	.0	47	.0	8.2
-6	.0	.0	.5	1.7	1.4	.0	.0	.0	.0	21	.0	3.6
-7/-8	.0	.0	.0	.5	.7	.2	.0	.0	.0	8	.0	1.4
-9/-10	.0	.2	.0	.3	.2	.0	.0	.0	.0	4	.0	.7
-11/-13	.2	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	1	2	28	129	213	142	46	14	1	576	1	575
PCT	.2	.3	4.9	22.4	37.0	24.7	8.0	2.4	.2	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.7
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4
3-4	.0	.0	.7	.0	.0	.0	.7	.0	.1	1.4	.0	.0	.0	1.5
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	1.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.6	.9	.0	.0	.0	1.5	.3	.9	1.4	1.0	.0	.0	3.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.3	.0	.0	.0	.0	.3	.7	1.7	.0	.0	.0	.0	2.4
1-2	.0	.9	.0	.0	.0	.0	.9	.0	4.5	.5	.0	.0	.0	5.0
3-4	.0	.9	1.4	.0	.0	.0	2.3	.0	1.8	3.6	.3	.0	.0	5.7
5-6	.0	.3	1.0	.0	.0	.0	1.4	.0	.1	6.4	.8	.0	.0	7.3
7	.0	.0	.7	.0	.0	.0	.7	.0	.0	1.9	2.5	.0	.0	4.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	3.1	.0	.0	5.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	1.1	.0	.0	1.8
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.5	3.1	.0	.0	.0	5.6	.7	8.0	15.3	7.8	.0	.0	31.8

PERIOD: (OVER-ALL) 1963-1969

APRIL

AREA 0019 SHARK BAY  
25.55 111.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.3	.9	.0	.0	.0	.0	1.2	.0	.9	.0	.0	.0	.0	.9		
1-2	.0	5.0	1.7	.0	.0	.0	6.7	.0	3.6	1.5	.0	.0	.0	5.1		
3-4	.0	2.2	8.4	.0	.0	.0	10.6	.0	.5	3.1	.0	.0	.0	3.6		
5-6	.0	.3	5.8	.3	.0	.0	6.3	.0	.0	1.1	.0	.0	.0	1.1		
7	.0	.0	3.9	1.6	.0	.0	5.5	.0	.0	.2	.0	.0	.0	.2		
8-9	.0	.0	1.8	1.7	.0	.0	3.5	.0	.0	.1	.0	.0	.0	.1		
10-11	.0	.0	.0	.6	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.3	8.3	21.6	4.2	.0	.0	34.4	.0	5.0	6.3	.0	.0	.0	11.3		

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
1-2	.0	1.4	.0	.0	.0	.0	1.4	.3	1.9	.3	.0	.0	.0	2.6		
3-4	.3	.3	1.3	.0	.0	.0	1.9	.0	.0	.8	.0	.0	.0	.8		
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1		
7	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0		
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.3	1.6	1.9	.0	.0	.0	3.9	.3	1.9	1.2	.0	.0	.0	3.4	95.5	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	5.8	4.1	.0	.0	.0	.0	9.9	
1-2	1.0	18.0	4.1	.0	.0	.0	23.1	
3-4	.3	5.8	20.4	.3	.0	.0	26.9	
5-6	.0	.7	14.6	1.0	.0	.0	16.3	
7	.0	.0	6.8	4.1	.0	.0	10.9	
8-9	.0	.0	4.1	4.8	.0	.0	8.8	
10-11	.0	.0	.7	1.7	.0	.0	2.4	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.7	1.0	.0	.0	1.7	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.1	28.6	51.4	12.9	.0	.0	100.0	294

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.3	5.9	5.9	4.0	2.6	1.8	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.99	4
6-7	.0	1.1	9.3	6.8	6.4	4.6	2.4	.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	144	6
8-9	.0	.2	4.2	5.5	5.5	3.7	.9	1.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	98	6
10-11	.0	.9	.4	.9	3.1	1.5	1.3	.4	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	45	8
12-13	.0	.0	.7	.2	.0	.4	.7	.2	.9	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	15	11
>13	.0	.0	.0	.4	.2	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	8
INDET	1.1	1.3	7.6	1.3	1.3	.7	.4	.2	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	45	5
TOTAL	11	43	105	87	87	58	28	13	20	0	1	1	0	0	0	0	0	0	0	454	6
PCT	2.4	9.5	23.1	19.2	19.2	12.8	6.2	2.9	4.4	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0019 SHARK BAY  
25.65 111.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	2.9	1.4	.0	.0	.0	.0	.0	4.3	.0	1.4	.0	.0	.0	.0	94.2
NE	1.1	3.3	.0	.0	.0	.0	.0	4.3	.0	1.1	.0	.5	.0	.0	94.0
E	2.1	1.2	.0	.0	.0	.0	.0	3.3	1.9	.0	.0	.7	.7	.0	93.4
SE	.8	.9	.9	.0	.0	.0	.0	2.1	.0	.1	.0	.0	.1	.0	97.7
S	2.0	3.3	.0	.0	.0	.0	.0	5.3	1.7	.9	.0	.0	.0	.0	92.1
SW	.7	1.7	1.3	.0	.0	.0	.0	3.7	1.3	1.7	.0	.0	.0	.0	93.3
W	1.3	7.6	5.1	.0	.0	.0	.0	14.0	.0	.0	.0	.0	.0	.0	86.0
NW	.0	13.8	.0	.0	.0	.0	.0	13.8	.0	.0	.0	.0	.0	.0	86.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.4	2.6	.7	.0	.0	.0	.0	4.5	.8	.5	.0	.1	.1	.0	93.9
TOT OBS:	740														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00603	2.7	1.3	.4	.0	.0	.0	.0	4.0	1.8	.0	.0	.0	.9	.0	93.3
06009	.6	3.4	1.1	.0	.0	.0	.0	5.1	1.1	.0	.0	.0	.0	.0	93.8
12015	.5	2.5	.0	.0	.0	.0	.0	3.0	.0	.5	.0	.0	.0	.0	96.5
18021	1.9	3.2	1.3	.0	.0	.0	.0	6.4	.0	1.9	.0	.6	.0	.0	91.0
TOT PCT	1.5	2.5	.7	.0	.0	.0	.0	4.5	.8	.5	.0	.1	.3	.0	93.8
TOT OBS:	756														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.7	1.7	1.6	.1	.0	.0		4.1	9.8		3.8	9.6	5.5	1.9	4.7	.0	2.6	1.9
NE	.7	3.4	2.5	.3	.0	.0		7.0	10.2		9.0	10.7	7.3	8.4	5.1	7.9	4.2	6.5
E	.6	5.5	7.3	.9	.2	.0		14.5	12.5		17.4	17.9	16.6	8.9	8.8	9.2	16.7	18.3
SE	1.3	10.5	14.2	2.3	.3	.0		28.6	13.0		30.0	26.6	28.3	27.1	28.4	26.3	32.0	24.0
S	1.1	10.4	10.5	1.3	.1	.0		23.3	11.8		20.5	17.9	24.0	29.9	25.0	35.5	22.3	21.2
SW	.6	5.9	3.6	.7	.1	.0		10.9	10.9		7.7	6.9	10.2	9.8	13.8	10.5	12.8	12.7
W	.8	2.5	2.1	.6	.1	.0		6.1	11.0		5.8	7.4	4.4	7.0	6.2	2.6	5.3	10.4
NW	.7	1.7	1.7	.2	.0	.0		4.4	10.3		4.8	3.0	2.8	7.0	5.8	7.9	2.6	3.5
VAR	.1	.0	.0	.0	.0	.0		.1	2.0		.0	.0	.0	.0	.3	.0	.0	.0
CALM	1.1							1.1	.0		1.0	.0	.8	.0	1.9	.0	1.4	1.5
TOT OBS	110	604	633	93	11	0	1451		11.7		300	91	249	107	316	38	220	130
TOT PCT	7.6	41.6	43.6	6.4	.8	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	1.4	2.1	.5	.1	.0		4.1	9.8	5.2	4.4	4.2	2.4		
NE	2.5	3.0	1.4	.0	.0		7.0	10.2	9.4	7.7	5.4	3.1		
E	2.6	8.4	3.1	.4	.0		14.5	12.5	17.5	14.3	8.8	17.3		
SE	3.9	16.6	7.4	.6	.1		28.6	13.0	29.2	27.9	28.2	29.1		
S	4.9	13.2	4.9	.4	.0		23.3	11.8	19.9	25.8	26.1	21.9		
SW	3.0	6.2	1.3	.3	.1		10.9	10.9	7.5	10.1	13.4	12.8		
W	2.3	2.4	1.1	.3	.0		6.1	11.0	6.1	5.2	5.8	7.2		
NW	1.5	2.1	.7	.1	.0		4.4	10.3	4.4	4.1	6.0	2.9		
VAR	.1	.0	.0	.0	.0		.1	2.0	.0	.0	.3	.0		
CALM	1.1						1.1	.0	.8	.6	1.7	1.4		
TOT OBS	336	785	795	32	3	1451		11.7	391	356	354	350		
TOT PCT	23.2	54.1	20.3	2.2	.2		100.0		100.0	100.0	100.0	100.0		



PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0019 SHARK BAY  
25.65 111.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	0-2	3-4	5-7	8-10	11-21	22-33	34-47	48+	MEAN	PCT	TOTAL
DIR	0-2	3-4	5-7	8-10	11-21	22-33	34-47	48+	MEAN	FREQ	OBS
N	1.7	.5	1.3	.2	3.5	.0	.0	.2	.0	.1	.5
NE	2.7	1.2	1.3	.3	3.1	.0	.0	.0	.0	.1	.1
E	10.5	2.4	2.3	1.7	2.5	.0	.0	.0	.0	1.2	.6
SE	16.4	6.8	8.6	2.4	3.2	.0	.0	.0	.3	2.1	2.8
S	8.2	4.0	8.1	2.5	3.9	.0	.0	.0	.9	2.9	1.8
SW	3.8	1.8	3.0	1.4	4.0	.0	.0	.0	.1	1.3	1.4
W	.5	.8	1.3	.1	4.2	.0	.0	.0	.1	.0	.8
NW	1.1	.2	.6	.0	3.2	.0	.0	.0	.0	.3	.0
W	.5	.8	1.3	.1	4.2	.0	.0	.0	.1	.0	.8
NW	1.1	.2	.6	.0	3.2	.0	.0	.0	.0	.3	.0
CALM	1.2	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0
VAP	1.5	.0	.0	.2	1.2	.0	.0	.0	.0	.2	.0
TOT OBS	244	93	139	48	524	0	0	1	7	41	44
TOT PCT	46.6	17.7	26.5	9.2	100.0	.0	.0	.2	1.3	7.8	8.4

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND	0-2	3-4	5-7	8-10	TOTAL	MEAN
DIR	0-2	3-4	5-7	8-10	OBS	CLOUD COVER
N	1.7	.5	1.3	.2	3.5	.0
NE	2.7	1.2	1.3	.3	3.1	.0
E	10.5	2.4	2.3	1.7	2.5	.0
SE	16.4	6.8	8.6	2.4	3.2	.0
S	8.2	4.0	8.1	2.5	3.9	.0
SW	3.8	1.8	3.0	1.4	4.0	.0
W	.5	.8	1.3	.1	4.2	.0
NW	1.1	.2	.6	.0	3.2	.0
W	.5	.8	1.3	.1	4.2	.0
NW	1.1	.2	.6	.0	3.2	.0
CALM	1.2	.0	.0	.0	2.0	.0
VAP	1.5	.0	.0	.2	1.2	.0
TOT OBS	244	93	139	48	524	0
TOT PCT	46.6	17.7	26.5	9.2	100.0	.0

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH	<5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT		OBS
.0	.0	.2	.0	.1	.5	.0	.0	.0	.0	.0	.2	2.9
.0	.0	.0	.0	.0	.1	.1	.2	.0	.0	.0	.0	5.1
.0	.0	.0	.0	.0	.6	.5	.0	.0	.0	.0	.5	14.0
.0	.0	.0	.3	2.1	2.8	1.5	.0	.4	.4	.4	.4	26.9
.0	.0	.0	.9	2.9	1.8	1.1	.2	.0	.7	.7	.7	15.2
.0	.0	.0	.1	1.3	1.4	1.2	.0	.0	.0	.0	.0	6.1
.0	.0	.0	.1	.0	.8	.0	.0	.0	.0	.0	.0	1.8
.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	1.6
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	1.5
.0	.0	.0	.1	.7	.4	.2	.2	.2	.2	.2	.2	39.5
.0	.0	.2	1.3	7.8	8.4	4.4	.4	.4	.4	1.7	75.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NH)

CEILING	= OR	= OR	= OR	VSBY (NH)	= OR	= OR	= OR	= OR	= OR
(FEET)	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0	>0
= OR >6500	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
= OR >5000	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
= OR >3500	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8	6.8
= OR >2000	13.5	14.4	14.4	14.8	14.8	14.8	14.8	14.8	14.8
= OR >1000	20.3	22.3	22.7	23.1	23.1	23.1	23.1	23.1	23.1
= OR >600	20.8	23.3	23.6	24.0	24.0	24.0	24.0	24.0	24.0
= OR >300	21.0	23.5	23.8	24.2	24.2	24.2	24.2	24.2	24.2
= OR >150	21.0	23.5	23.8	24.2	24.2	24.2	24.2	24.2	24.2
= OR >0	21.0	23.5	23.8	24.2	24.2	24.2	24.2	24.2	24.2
TOTAL	112	125	127	129	129	129	129	129	129

TOTAL NUMBER OF OBS: 533

PCT FREQ NH <5/8: 75.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	TOTAL
23.4	20.2	13.7	9.7	8.5	6.6	6.6	5.6	5.8	OBS
23.4	20.2	13.7	9.7	8.5	6.6	6.6	5.6	5.8	.0
									590

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1897-1972

MAY

AREA 0019 SHARK BAY  
25.6S 111.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	*	.1	.0	.1	.0	.0	.0	.3	.3
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	*	.1	.0	.1	.0	.0	.0	.3	.3
2<5	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	NO PCP	.1	.0	.0	.6	.2	.1	.0	.0	.0	.0	1.1	1.1
	TOT %	.1	.0	.0	.7	.2	.1	.0	.0	.0	.0	1.2	1.2
5<10	PCP	.1	.2	.2	.3	.3	.2	.3	.3	.0	.0	1.9	1.9
	NO PCP	.5	1.0	1.1	3.2	3.1	1.2	.5	.5	.0	.0	11.2	11.2
	TOT %	.6	1.2	1.3	3.5	3.5	1.4	.8	.8	.0	.0	13.1	13.1
10+	PCP	.1	.1	.3	.2	.7	.2	.3	.2	.0	.0	2.0	2.0
	NO PCP	3.9	5.0	12.8	26.3	19.0	8.4	4.0	2.6	.1	1.2	83.4	83.4
	TOT %	4.0	5.0	13.1	26.5	19.7	8.6	4.3	2.8	.1	1.2	85.4	85.4
TOT OBS		739											
TOT PCT		4.7	6.2	14.4	30.7	23.5	10.1	5.3	3.7	.1	1.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	11-21	*	.0	.0	.0	.0	.0	.0	*	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.0	.0	.0	.0	.0	*	.0	.0	.2	.2
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	*	.3	*	.0	.0	.0	.0	.4	.4
	11-21	.0	.0	.1	*	.3	.0	.1	.0	.0	.0	.5	.5
	22+	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	TOT %	.1	.0	.1	.1	.6	*	.1	.0	.0	.0	1.1	1.1
2<5	0-3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.3	.3
	11-21	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	.3	.3
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.0	.5	.1	.1	.0	.0	.0	.0	.7	.7
5<10	0-3	.1	.2	.2	.6	.5	.3	.5	.2	.0	.0	2.6	2.6
	4-10	.4	1.5	2.1	3.5	3.3	2.1	1.1	1.0	.0	.0	15.1	15.1
	11-21	.7	1.1	2.1	3.9	4.2	1.5	.8	.6	.0	.0	14.7	14.7
	22+	.0	.2	.3	.9	.8	.7	.3	.2	.0	.0	3.4	3.4
	TOT %	1.2	2.9	4.8	8.9	8.7	4.6	2.7	2.0	.0	.0	35.7	35.7
10+	0-3	.6	.5	.4	.7	.6	.4	.4	.3	.1	.8	4.9	4.9
	4-10	1.4	2.1	3.5	6.7	6.5	3.8	1.6	1.0	.0	.0	26.6	26.6
	11-21	.7	1.6	4.5	9.8	6.4	2.2	1.1	1.2	.0	.0	27.5	27.5
	22+	.0	.2	.8	1.2	.7	.2	.2	.1	.0	.0	3.4	3.4
	TOT %	2.8	4.4	9.2	18.3	14.2	6.6	3.3	2.6	.1	.8	62.3	62.3
TOT OBS		1213											
TOT PCT		4.2	7.4	14.0	27.8	23.6	11.3	6.1	4.6	.1	.8	100.0	

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1857-1972

MAY

AREA 0019 SHARK BAY  
25.65 111.66

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.7	9.2	8.5	5.6	.0	1.4	2.1	27.5	72.5	142
06009	.0	.0	.0	.6	12.2	8.3	3.2	.6	.0	.6	25.6	74.4	156
12015	.0	.0	.0	.7	5.0	5.7	2.1	.7	.0	2.1	16.3	83.7	141
18021	.0	.0	.7	2.9	3.6	8.0	5.1	.0	.0	1.4	21.7	78.3	138
TOT PCT	0 .0	0 .0	1 .2	7 1.2	44 7.6	44 7.6	23 4.0	2 .3	2 .3	9 1.6	132 22.9	445 77.1	577 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.6	1.1	.8	30.9	66.6	356
06009	.0	.0	1.5	.4	29.9	68.3	271
12015	.0	.0	1.2	1.8	42.3	54.6	326
18021	.0	.0	.3	.0	42.3	57.4	298
TOT PCT	0 .0	2 .2	13 1.0	10 .8	455 36.4	771 61.6	1251 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	2.2	26.9	70.9	134
06009	.0	.0	1.4	25.0	73.6	148
12015	.0	.0	.0	17.5	82.5	126
18021	.0	.8	4.0	19.2	76.8	125
TOT PCT	0 .0	1 .2	10 1.9	119 22.3	404 75.8	533 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.1	.2	.1	.3	.1	.0	8	19.9
75/79	.0	.6	.9	2.8	4.7	7.3	2.5	1.0	184	49.3
70/74	.0	.1	2.3	5.4	17.0	13.6	7.2	3.7	457	27.7
65/69	.0	.1	.4	3.9	7.6	7.8	5.0	3.0	257	21.3
60/64	.0	.0	.0	.3	.5	.5	.4	.4	21	2.3
TOTAL PCT	0 .0	8 .9	34 3.7	117 12.6	278 30.0	274 29.6	141 15.2	75 8.1	927	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
80	.0	.1	.3	.2	.1	.0	.0	.1	.0	.0
75	2.4	1.6	3.3	4.8	4.1	1.6	.7	1.2	.0	.1
70	1.7	3.3	6.0	14.4	12.9	5.9	2.7	1.8	.1	.4
65	.2	1.9	3.9	8.4	6.5	4.3	1.9	.6	.0	.1
60	.0	.1	.2	.7	.9	.4	.1	.0	.0	.0
TOTAL	4.3	7.0	13.7	28.5	24.5	12.2	5.4	3.8	.1	.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	82	78	71	65	63	62	71.5	389
06009	86	82	79	73	67	65	63	72.8	337
12015	89	81	79	71	66	65	63	71.7	350
18021	79	78	75	70	65	63	63	70.1	344
TOT	89	81	78	71	65	64	62	71.5	1420

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	17.8	27.8	29.6	17.4	7.4	71	270		
06009	.0	19.1	40.9	27.7	8.6	3.6	58	220		
12015	.0	15.2	27.5	32.0	16.0	9.4	72	244		
18021	.0	14.8	25.8	27.1	20.1	12.2	73	229		
TOT	0	161	291	281	151	79	71	963		

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1857-1972

MAY

TABLE 17

AREA 0019 SHARK BAY  
25.65 111.6E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	68 68	69 72	73 76	77 80	81 84	TOT	W FOG	WN FOG
6	.0	.0	.0	.2	.0	.2	2	.0	.4
5	.0	.0	.4	.0	1.1	.6	11	.0	2.0
4	.0	.0	.2	.7	.6	.2	9	.0	1.7
3	.0	.0	.2	1.5	.9	.0	14	.0	2.6
2	.0	.0	.4	1.1	1.8	.4	20	.0	3.7
1	.2	.4	1.3	2.9	1.3	.0	33	.0	6.1
0	.0	.0	2.8	4.1	3.3	.0	55	.0	10.1
-1	.2	1.3	4.2	5.3	1.3	.0	67	.0	12.3
-2	.0	2.0	4.1	4.1	1.7	.0	64	.0	11.8
-3	.0	1.7	4.4	4.6	.2	.0	59	.0	10.9
-4	.2	2.4	5.7	3.5	.0	.0	64	.0	11.8
-5	.0	2.6	4.8	2.4	.6	.0	56	.0	10.3
-6	.4	2.4	2.2	1.3	.0	.0	34	.0	6.3
-7/-8	.7	2.2	4.6	.7	.0	.0	45	.0	8.3
-9/-10	.4	1.1	.4	.0	.0	.0	10	.0	1.8
TOTAL	11	87	193	176	69	7	543	0	543
PCT	2.0	16.0	35.5	32.4	12.7	1.3	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4	.0	.4	.0	.0	.0	.0	.4
1-2	.3	.8	.0	.0	.0	.0	1.1	.0	.6	.1	.0	.0	.0	.7
3-4	.0	1.0	.5	.0	.0	.0	1.5	.0	.4	1.8	.0	.0	.0	2.2
5-6	.0	.0	1.1	.0	.0	.0	1.1	.0	.4	.1	.0	.0	.0	.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.2	1.6	.0	.0	.0	4.1	.0	1.7	2.0	.0	.0	.0	3.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	.3	.0	.0	.0	.0	.9	.5	.9	.0	.0	.0	.0	1.4
1-2	.0	2.3	.6	.0	.0	.0	3.0	.0	5.5	1.5	.0	.0	.0	7.0
3-4	.0	2.5	4.2	.0	.0	.0	6.8	.0	4.4	5.6	.0	.0	.0	10.0
5-6	.0	.3	1.0	.0	.6	.0	1.9	.0	1.2	7.7	1.1	.5	.0	10.4
7	.0	.0	.7	.9	.0	.0	1.6	.0	.0	1.6	.4	.0	.0	2.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.7	.0	.0	1.8
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	5.4	6.6	.9	.6	.0	14.2	.5	12.0	17.5	2.5	.5	.0	32.9

PERIOD: (OVER-ALL) 1963-1972

MAY

AREA 0019 SHARK BAY  
25.65 111.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	3.0	.4	.0	.0	.0	3.3	.5	1.0	.0	.0	.0	.0	1.4
1-2	.0	5.8	1.3	.0	.0	.0	7.0	.0	2.9	.8	.0	.0	.0	3.7
3-4	.9	2.4	6.6	.0	.0	.0	9.9	.2	1.9	1.7	.0	.0	.0	3.8
5-6	.0	.4	4.2	.0	.0	.0	4.6	.0	.0	1.1	.0	.0	.0	1.1
7	.0	.3	1.3	.9	.0	.0	2.4	.0	.1	.0	.0	.0	.0	.1
8-9	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.1	.0	.0	.1
10-11	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	11.8	13.7	1.5	.0	.0	28.0	.6	5.9	3.6	.1	.0	.0	10.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.6	.3	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.4	.4	.0	.0	.0	.7	.5	.1	.0	.0	.0	.0	.5	.5
3-4	.0	.3	.3	.0	.0	.0	.5	.0	.5	.9	.0	.0	.0	1.4	1.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.7	.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.4	.4
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	.9	.6	.0	.0	.0	2.2	.5	.5	2.0	.0	.0	.0	3.0	98.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.6	5.4	.4	.0	.0	.0	11.3	
1-2	1.1	18.1	4.6	.0	.0	.0	23.8	
3-4	1.1	13.1	21.3	.0	.0	.0	35.5	
5-6	.4	2.1	15.6	1.1	1.1	.0	20.2	
7	.0	.4	3.9	2.1	.0	.0	6.4	
8-9	.0	.0	1.1	1.1	.0	.0	2.1	
10-11	.0	.0	.0	.7	.0	.0	.7	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.1	40.1	46.8	5.0	1.1	.0	100.0	282

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	.9	5.3	10.7	3.9	3.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	105	4
6-7	.0	1.1	8.2	6.8	5.0	1.1	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	103	5
8-9	.0	.7	2.1	8.0	5.5	4.1	1.8	.9	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	102	6
10-11	.0	.2	.7	.9	4.1	3.2	1.1	.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	48	7
12-13	.0	.0	.5	.9	1.1	2.1	1.1	.9	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	8
>13	.0	.0	.0	.7	.7	.9	.0	.2	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	8
INDFT	1.1	.9	.7	2.3	2.3	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	35	5
TOTAL	9	36	100	103	96	53	23	10	8	0	0	0	0	0	0	0	0	0	0	.0	438	6
PCT	2.1	8.2	27.8	23.5	21.9	12.1	5.3	2.3	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1859-1969

JUNE

AREA 0019 SHARK BAY  
25.45 111.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WQ PCPN	FGG WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	11.4	5.7	.0	.0	.0	.0	.0	17.1	4.9	.0	.0	.0	2.4	.0	75.6
NE	6.7	.0	.0	.0	.0	.0	.0	6.7	3.5	2.0	.0	.0	.4	.0	89.0
E	4.0	.0	.0	.0	.0	.0	.0	4.0	1.1	1.9	.0	.0	.0	.0	93.1
SE	.8	.0	2.5	.0	.0	.0	.0	2.6	.8	.0	.0	.0	.0	.6	96.0
S	2.5	2.3	.7	.0	.0	.0	.0	5.5	5.9	.5	.5	.0	.0	.0	87.7
SW	3.3	11.5	1.3	.0	.0	.0	.0	16.0	1.0	.8	.5	.0	.0	.0	81.7
W	1.3	13.5	1.3	.0	.0	.0	.0	16.0	3.8	1.0	.0	.0	.0	.0	79.2
NW	5.3	4.5	.0	.0	.0	.0	.0	9.7	12.1	1.6	.0	.0	.0	.0	76.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	8.3	.0	.0	.0	.0	.0	91.7
TOT PCT	3.2	4.1	1.0	.0	.0	.0	.0	8.1	3.5	.8	.1	.0	.1	.1	87.2
TOT OBS:	712														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WQ PCPN	FGG WQ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	4.3	3.8	1.0	.0	.0	.0	.0	9.1	2.9	.0	.0	.0	.5	.5	87.0
06004	3.5	4.0	.0	.0	.0	.0	.0	7.5	4.6	.0	.0	.0	.0	.0	87.9
12015	2.2	3.3	.0	.0	.0	.0	.0	5.4	3.3	1.6	.0	.0	.0	.0	89.7
18021	2.6	5.1	3.2	.0	.0	.0	.0	10.3	3.2	1.9	.6	.0	.0	.0	84.6
TOT PCT	3.2	4.0	1.0	.0	.0	.0	.0	8.0	3.5	.8	.1	.0	.1	.1	87.4
TOT OBS:	721														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.6	1.9	2.0	.3	.0	.0		4.9	11.3		3.6	7.5	5.6	4.8	5.0	2.9	5.0	5.4
NE	.3	4.1	2.4	.2	.0	.0		7.0	9.7		7.2	13.8	10.4	6.0	5.1	4.8	6.3	3.9
E	.5	4.8	7.0	.8	.0	.0		13.1	12.4		16.6	19.2	14.6	8.4	8.5	5.8	13.3	16.8
SE	.8	8.8	11.3	1.9	.0	.0		22.7	12.7		22.0	21.7	20.1	21.6	22.6	33.7	24.4	25.4
S	.8	7.1	8.6	.8	.1	.0		17.4	12.2		14.3	10.4	14.3	21.2	25.1	26.0	16.2	12.1
SW	.1	5.6	6.5	2.4	.4	.0		15.0	14.6		14.7	9.2	15.1	20.2	14.0	15.4	14.8	16.1
W	.3	2.9	5.1	1.9	.5	.0		10.6	16.0		11.9	12.1	10.1	10.6	10.3	5.8	9.9	11.8
NW	.2	3.2	3.4	1.0	.0	.0		7.8	13.3		8.9	6.3	8.5	4.0	7.3	5.8	9.2	7.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.3							1.3	.0		.9	.0	1.3	3.2	2.2	.0	.9	.7
TOT OBS	80	600	723	145	14	0	1562		12.8		330	60	307	125	324	52	224	140
TOT PCT	5.1	38.4	46.3	9.3	.9	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	1.0	2.6	1.2	.0	.0			4.9	11.3	4.2	5.4	4.7	5.2
NE	2.1	4.3	.6	.1	.0			7.0	9.7	8.2	9.1	5.1	5.4
E	2.0	7.7	3.3	.1	.0			13.1	12.4	17.0	12.8	8.1	14.6
SE	3.6	12.6	6.2	.3	.0			22.7	12.7	21.9	20.5	24.1	24.8
S	3.1	9.7	4.4	.3	.0			17.4	12.2	13.7	16.3	25.2	14.6
SW	1.8	7.6	4.2	1.5	.1			15.0	14.6	13.8	16.6	14.2	15.3
W	1.2	4.5	3.7	.9	.2			10.6	16.0	11.9	10.2	9.6	10.6
NW	1.1	4.3	2.1	.3	.0			7.8	13.3	8.5	7.2	7.0	8.7
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0
CALM	1.3							1.3	.0	.8	1.9	1.9	.8
TOT OBS	270	834	402	52	4	1562		12.8		390	432	376	364
TOT PCT	17.3	53.4	25.7	3.3	.3			100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1859-1969

JUNE

AREA 0019 SHARK BAY  
25.4S 111.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

			WIND SPEED (KNOTS)					PCT		TOTAL
HOUR	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	FREQ	OBS
00003	.8	4.4	38.7	45.4	10.3	.5	.0	12.8	100.0	390
06009	1.9	3.5	33.6	50.5	10.2	.5	.0	13.1	100.0	432
12015	1.9	4.5	43.4	42.8	8.4	1.1	.0	12.0	100.0	376
18021	.8	2.7	38.7	45.9	10.2	1.6	.0	13.3	100.0	364
TOT	21	59	600	723	145	14	0	12.8		1562
PCT	1.3	3.8	38.4	46.3	9.3	.9	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL	MEAN
	OBS	OBS	OBS	OBS	OBS	COVER
N	1.2	1.0	.9	1.2	4.4	
NE	4.6	1.4	1.4	1.4	3.3	
E	6.5	2.4	3.0	1.1	3.1	
SE	8.0	5.1	7.8	3.0	4.1	
S	4.2	4.1	4.2	3.3	4.3	
SW	3.6	4.3	5.2	1.0	4.1	
W	1.3	2.8	3.4	1.4	4.8	
NW	2.8	2.2	3.3	1.2	4.3	
VAR	.0	.0	.0	.0	.0	
CALM	1.4	.2	.2	.0	1.6	
TOT OBS	193	134	169	78	574	4.0
TOT PCT	33.6	23.3	29.4	13.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL	MEAN	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	OBS	OBS	OBS	OBS	OBS	COVER	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	1.2	1.0	.9	1.2	4.4		.0	.0	.2	.1	.8	.1	.3	.0	.0	.0	.0	2.7
NE	4.6	1.4	1.4	1.4	3.3		.0	.0	.0	.2	.5	1.4	.1	.0	.0	.0	.0	5.7
E	6.5	2.4	3.0	1.1	3.1		.0	.0	.2	.2	1.2	1.3	.1	.0	.2	.0	.0	9.9
SE	8.0	5.1	7.8	3.0	4.1		.0	.0	.2	.4	4.0	2.7	.7	.3	.0	.0	.3	15.2
S	4.2	4.1	4.2	3.3	4.3		.2	.0	.1	1.0	2.5	1.2	.9	.6	.0	.0	.0	9.4
SW	3.6	4.3	5.2	1.0	4.1		.2	.0	.1	.4	3.0	.5	.4	.1	.0	.0	.0	9.5
W	1.3	2.8	3.4	1.4	4.8		.2	.0	.0	.1	1.2	1.6	.2	.0	.0	.0	.0	5.5
NW	2.8	2.2	3.3	1.2	4.3		.0	.0	.0	.4	1.6	1.4	.1	.0	.0	.0	.0	6.1
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.4	.2	.2	.0	1.6		.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	1.6
TOT OBS	193	134	169	78	574	4.0	3	0	4	16	85	59	16	6	1	2	382	574
TOT PCT	33.6	23.3	29.4	13.6	100.0		.5	.0	.7	2.8	14.8	10.3	2.8	1.0	.2	.3	66.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.5	.5	.5	.5	.5	.5	.5	.5
= OR >5000	1.4	1.6	1.6	1.6	1.6	1.6	1.6	1.6
= OR >3500	4.0	4.3	4.3	4.3	4.3	4.3	4.3	4.3
= OR >2000	13.3	14.6	14.6	14.6	14.6	14.6	14.6	14.6
= OR >1000	25.3	28.6	29.1	29.3	29.3	29.3	29.3	29.3
= OR >600	26.7	31.0	31.9	32.1	32.1	32.1	32.1	32.1
= OR >300	26.9	31.4	32.6	32.8	32.8	32.8	32.8	32.8
= OR >150	26.9	31.4	32.6	32.8	32.8	32.8	32.8	32.8
= OR >0	27.0	31.7	32.9	33.1	33.1	33.1	33.3	33.3
TOTAL	156	183	190	191	191	191	192	192

TOTAL NUMBER OF OBS: 577

PCT FREQ NH <5/8: 66.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCU	TOTAL
11.5	15.7	15.3	13.3	10.6	8.4	8.6	5.5	10.7	.3	616

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1859-1969

JUNE

AREA 0019 SHARK BAY  
25.45 111.6F

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
2<5	PCP	.1	.1	.0	.1	.2	*	.3	.1	.0	.0	1.1	
	NO PCP	.0	.0	.0	.2	.2	.2	.4	.1	.0	.0	1.1	
	TOT %	.1	.1	.0	.3	.5	.2	.7	.3	.0	.0	2.2	
5<10	PCP	.4	.2	.1	.0	.5	1.5	.7	.3	.0	.0	3.7	
	NO PCP	.8	.9	1.2	1.9	1.9	1.8	1.0	1.2	.0	.1	10.8	
	TOT %	1.2	1.1	1.4	1.9	2.4	3.3	1.7	1.5	.0	.1	14.5	
10+	PCP	.2	.3	.4	.5	.1	.4	.8	.4	.0	.0	3.1	
	NO PCP	2.8	7.4	11.5	20.1	12.4	9.8	7.8	6.5	.0	1.5	79.9	
	TOT %	3.0	7.7	11.9	20.6	12.6	10.2	8.5	6.9	.0	1.5	83.0	
TOT OBS													
TOT PCT													
		4.3	8.9	13.3	22.8	15.4	14.0	11.0	8.7	.0	1.7	100.0	712

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
1<2	0-3	.1	.0	.0	*	.1	.0	.0	.0	.0	.0	.2	
	4-10	.1	.0	.0	.0	.2	.2	.1	*	.0	.0	.3	
	11-21	.0	.0	.0	.1	*	.2	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.1	.3	.4	.1	*	.0	.0	1.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.3	.2	.2	.2	.0	.0	.9	
	11-21	.1	.0	.0	.1	.0	.1	.2	.0	.0	.0	.4	
	22+	.0	.1	.0	.0	.2	*	.1	.0	.0	.0	.3	
	TOT %	.1	.1	.0	.2	.3	.3	.5	.2	.0	.0	1.6	
5<10	0-3	.1	.1	.0	.4	.6	.0	.0	.0	.0	.3	1.5	
	4-10	1.0	1.7	1.7	2.7	3.3	1.4	.9	1.1	.0		13.8	
	11-21	.8	1.1	2.6	4.9	3.1	2.3	1.6	1.3	.0		17.7	
	22+	.4	.1	.2	.8	.5	2.0	1.5	.2	.0		5.6	
	TOT %	2.3	3.0	4.5	8.8	7.0	5.6	4.0	2.6	.0	.3	38.7	
10+	0-3	.4	.3	.6	.5	.3	.1	.4	.2	.0	1.1	3.8	
	4-10	1.2	3.0	3.5	6.3	3.6	3.6	1.8	2.0	.0		24.9	
	11-21	.8	1.8	3.8	6.5	5.1	2.9	3.3	2.1	.0		26.1	
	22+	.1	.0	.6	.9	.2	.7	.7	.5	.0		3.7	
	TOT %	2.4	5.0	8.3	14.2	9.1	7.3	6.1	4.8	.0	1.1	58.5	
TOT OBS													
TOT PCT													
		4.9	8.1	12.8	23.3	17.3	13.6	10.9	7.6	.0	1.4	100.0	1195

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1859-1969

JUNE

AREA 0019 SHARK BAY  
25.45 111.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.6	.0	.6	1.9	18.8	7.5	1.9	.6	.0	.0	31.9	68.1	160
06009	.7	.0	.0	3.9	13.7	9.8	5.9	.0	.0	.7	34.6	65.4	153
12015	.0	.0	.7	2.0	11.3	9.3	1.3	1.3	.0	.0	26.0	74.0	150
18021	.7	.0	1.4	2.9	12.3	13.0	1.4	2.2	.7	.7	35.5	64.5	138
TOT	3	0	4	16	85	59	16	6	1	2	192	409	601
PCT	.5	.0	.7	2.7	14.1	9.8	2.7	1.0	.2	.3	31.9	68.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.3	.9	2.4	36.2	60.2	334
06009	.4	.4	1.4	.0	33.6	64.3	283
12015	.0	.0	1.5	1.8	44.3	52.3	327
18021	.0	.0	.0	2.2	41.8	56.0	275
TOT	1	2	12	20	476	768	1219
PCT	.1	.2	1.0	1.6	39.0	58.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.6	1.3	5.1	27.6	67.3	156
06009	.7	.7	4.8	31.5	63.7	146
12015	.0	.7	3.5	23.8	72.7	143
18021	.8	2.3	5.3	31.8	62.9	132
TOT	3	7	27	165	385	577
PCT	.5	1.2	4.7	28.6	66.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.0	.2	.0	.0	2	.2
75/79	.0	.2	.2	.4	1.7	1.7	.5	.2	51	5.2
70/74	.0	.2	.9	3.3	9.1	8.2	4.1	1.0	266	26.9
65/69	.0	.0	.8	8.2	16.6	16.2	8.3	3.2	527	53.3
60/64	.0	.0	.1	1.4	4.1	4.0	3.3	.5	134	13.6
55/59	.0	.0	.0	.1	.2	.1	.1	.3	8	.8
TOTAL	0	4	20	135	314	301	162	52	988	100.0
PCT	.0	.4	2.0	13.7	31.8	30.5	16.4	5.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.1	.0	.0	.0	.1	.0	.0
.9	1.1	.5	.5	.7	.1	.4	.9	.0	.2
2.8	3.4	3.3	5.4	3.1	3.3	1.6	3.3	.0	.7
1.5	3.6	6.7	12.1	10.9	8.5	6.1	3.3	.0	.5
.1	.4	2.0	4.7	2.5	2.3	1.2	.4	.0	.0
.0	.0	.2	.2	.0	.2	.2	.0	.0	.1
5.1	8.5	12.7	23.0	17.1	14.5	9.5	8.1	.0	1.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	88	81	75	67	62	59	57	68.0	385
06009	87	81	77	69	63	61	59	69.3	414
12015	82	79	76	68	63	61	53	68.5	373
18021	76	75	73	67	62	60	59	67.1	364
TOT	88	80	75	68	62	60	53	68.3	1536

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	13.1	32.6	26.6	21.3	6.4	72	267		
06009	.0	22.3	34.9	25.8	13.1	3.9	58	229		
12015	.0	19.3	27.5	36.4	12.3	4.5	59	269		
18021	.0	10.6	31.4	32.7	18.4	6.9	72	245		
TOT	0	164	318	308	165	55	70	1010		

JUNE

PERIOD: (PRIMARY) 1912-1969  
(OVER-ALL) 1859-1969AREA 0019 SHARK BAY  
25.45 111.6E

TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WQ FOG
9/10	.0	.0	.0	.2	.2	.0	.0	.2	3	.0	.5
7/8	.0	.0	.0	.3	.3	.0	.3	.0	6	.0	1.0
6	.0	.0	.0	.0	.2	.3	.0	.0	3	.0	.5
5	.0	.0	.0	.0	.0	.7	.2	.0	5	.0	.8
4	.0	.0	.0	.3	.2	.5	.0	.0	6	.0	1.0
3	.0	.0	.2	.8	.7	.5	.2	.0	14	.0	2.4
2	.0	.0	.5	1.0	.8	.3	.0	.0	16	.0	2.7
1	.0	.0	.8	1.2	1.7	1.0	.0	.0	28	.0	4.7
0	.0	.3	1.0	2.2	2.7	.5	.0	.0	40	.0	6.8
-1	.0	.0	2.7	3.7	2.4	.8	.0	.0	57	.0	9.6
-2	.0	.5	3.0	4.7	2.2	.0	.0	.0	62	.0	10.5
-3	.0	.2	5.2	3.2	1.9	.0	.0	.0	62	.0	10.5
-4	.2	.3	5.8	3.4	1.0	.0	.0	.0	63	.0	10.7
-5	.0	.7	5.8	3.6	.3	.0	.0	.0	61	.0	10.3
-6	.3	.0	4.7	2.9	.5	.0	.0	.0	50	.2	8.3
-7/-8	.0	1.7	6.9	1.9	.2	.2	.0	.0	64	.0	10.8
-9/-10	.0	1.0	2.5	.7	.2	.0	.0	.0	26	.0	4.4
-11/-13	.2	1.4	1.7	.2	.0	.0	.0	.0	20	.0	3.4
-14/-16	.0	.5	.2	.0	.0	.0	.0	.0	4	.0	.7
-17/-19	.2	.0	.0	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	5	39	243	179	91	29	4	1	591	1	590
PCT	.8	6.6	41.1	30.3	15.4	4.9	.7	.2	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	1.0
1-2	.2	1.1	.0	.0	.0	.0	1.3	.0	2.8	1.0	.0	.0	.0	3.8
3-4	.3	.2	1.0	.0	.0	.0	1.6	.0	1.4	1.3	.0	.0	.0	2.7
5-6	.0	.3	.8	.2	.0	.0	1.4	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.6	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	1.6	2.4	.6	.0	.0	5.2	.0	5.2	2.6	.3	.0	.0	8.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3
1-2	.3	3.4	.8	.0	.0	.0	4.5	.0	7.1	.2	.0	.0	.0	7.3
3-4	.0	.7	3.5	.3	.0	.0	4.4	.3	2.1	5.4	.3	.0	.0	8.2
5-6	.0	.0	1.8	.2	.0	.0	2.1	.0	.7	2.4	.1	.0	.0	3.2
7	.0	.0	.0	.3	.0	.0	.3	.0	.0	1.0	.7	.0	.0	1.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.0	5.1	.9	.0	.0	11.3	.7	10.0	9.0	2.1	.0	.0	21.7



PERIOD: (OVER-ALL) 1953-1969

JUNE

AREA 0019 SHARK BAY  
75.45 111.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.2	.0	.0	.0	.0	.2	.0	.8	.0	.0	.0	.0	.8
1-2	.2	3.5	.6	.0	.0	.0	4.3	.1	2.7	.3	.0	.0	.0	3.1
3-4	.0	2.6	2.1	.0	.0	.0	4.8	.0	2.9	2.3	.0	.0	.0	5.2
5-6	.0	.6	3.3	.0	.0	.0	3.9	.0	.3	1.2	.0	.0	.0	1.5
7	.0	.0	.6	.0	.0	.0	.6	.0	.0	1.4	.3	.0	.0	1.7
8-9	.0	.0	.9	.0	.0	.0	.9	.0	.3	.7	.1	.0	.0	1.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.1	.0	.7
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	6.9	7.5	.0	.0	.0	14.6	.1	7.1	5.9	1.1	.1	.0	14.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.3	.2	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.6	.0	.0	.0	.0	1.6	.1	1.9	1.3	.0	.0	.0	3.3	.0
3-4	.0	1.3	2.8	.0	.0	.0	4.1	.0	1.9	2.3	.3	.0	.0	4.5	.0
5-6	.0	.3	1.9	.0	.0	.0	2.2	.0	.3	1.8	.7	.0	.0	2.9	.0
7	.0	.0	.0	.2	.0	.0	.2	.0	.0	.7	.1	.0	.0	.8	.0
8-9	.0	.0	.0	.2	.0	.0	.2	.0	.0	.3	.7	.0	.0	1.0	.0
10-11	.0	.0	.0	.7	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	.0
13-16	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	3.5	4.7	1.2	.2	.0	10.0	.1	4.1	6.5	2.1	.0	.0	12.8	98.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.9	2.3	.0	.0	.0	.0	5.2	
1-2	1.3	23.9	4.2	.0	.0	.0	29.4	
3-4	.7	13.1	20.6	1.0	.0	.0	35.3	
5-6	.0	2.6	13.4	1.3	.0	.0	17.3	
7	.0	.0	4.2	1.6	.0	.0	5.9	
8-9	.0	.3	2.0	2.0	.0	.0	4.2	
10-11	.0	.0	.0	1.3	.0	.0	1.3	
12	.0	.0	.0	.3	.0	.0	.3	
13-16	.0	.0	.0	.7	.3	.0	1.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.9	42.2	44.4	8.2	.3	.0	100.0	306

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.7	5.8	8.1	1.3	1.1	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	80	3
6-7	.0	.4	8.8	9.7	2.7	2.2	1.6	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	119	5
8-9	.0	.0	.9	6.1	6.7	4.7	4.0	1.8	2.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	119	8
10-11	.0	.0	.2	2.0	3.6	4.0	1.6	2.2	1.3	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	74	9
12-13	.0	.0	.7	.7	.4	.2	.9	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	8
>13	.0	.0	.0	.2	.0	.0	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	10
INDET	1.3	.9	1.1	.7	.2	1.3	.2	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	28	5
TOTAL	9	32	88	92	46	58	43	30	18	9	0	0	0	0	0	0	0	0	0	444	6
PCT	2.0	7.2	19.8	20.7	14.8	13.0	9.7	6.7	4.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1884-1969  
(OVER-ALL) 1861-1969

JULY

AREA 0019 SHARK BAY  
25.35 111.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	ND SIG WEA
N	2.9	6.7	.0	.0	.0	.0	.0	9.6	10.6	.0	.0	.0	.0	.0	79.8
NE	.8	3.0	.0	.0	.0	.0	.0	3.8	6.0	.0	.0	.0	.0	.0	90.2
E	.0	1.0	.0	.0	.0	.0	.0	1.0	.0	1.0	.0	.0	.0	.0	98.0
SE	.9	.0	.0	.0	.0	.0	.0	.9	1.5	.0	.0	.0	.0	.0	97.6
S	1.8	1.0	1.8	.0	.0	.0	.0	4.6	1.8	.0	.0	.0	.0	.0	93.7
SW	.3	2.6	.3	.0	.0	.0	.0	3.3	4.3	.3	.0	.0	.0	.0	92.1
W	6.7	5.3	3.1	.0	.0	.0	.0	15.1	3.6	1.3	.0	.0	.0	.0	80.0
NW	7.0	.9	.9	.0	.0	.0	.0	8.8	11.4	.0	.0	.0	.0	.0	79.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.8	1.8	.7	.0	.0	.0	.0	4.3	3.0	.4	.0	.0	.0	.0	92.3
TOT OBS:	562														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	ND SIG WEA
00003	2.5	1.3	1.3	.0	.0	.0	.0	5.0	1.9	.0	.0	.0	.0	.0	93.1
06009	.8	1.6	.8	.0	.0	.0	.0	3.1	2.3	.0	.0	.0	.0	.0	94.6
12015	1.4	2.1	.7	.0	.0	.0	.0	4.2	2.8	.7	.0	.0	.0	.0	92.3
18021	2.2	3.0	.0	.0	.0	.0	.0	5.2	5.2	.7	.0	.0	.0	.0	88.8
TOT PCT	1.8	2.0	.7	.0	.0	.0	.0	4.4	3.0	.4	.0	.0	.0	.0	92.2
TOT OBS:	564														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	2.2	2.1	.8	.0	.0		5.2	13.3		4.0	5.8	7.7	4.3	4.7	6.3	3.7	6.8
NE	.4	3.2	1.8	.6	.0	.0		5.9	10.9		6.9	8.3	6.8	6.5	5.5	5.0	3.8	5.0
E	.5	7.8	7.6	1.6	.2	.1		17.7	12.7		21.9	18.3	19.3	15.1	13.5	11.3	19.2	15.5
SE	.4	8.2	13.4	3.0	.1	.0		25.1	13.8		26.4	38.8	18.7	22.5	23.1	36.3	23.9	33.8
S	.7	7.1	6.8	2.0	*	.0		16.6	12.7		12.5	14.6	15.4	20.7	22.9	18.8	17.4	9.0
SW	.5	4.9	4.9	2.0	.4	.0		12.6	14.2		11.6	5.8	16.2	10.8	12.1	7.5	13.6	13.3
W	.4	2.5	3.8	1.7	.2	.0		8.7	15.2		7.4	3.3	8.7	9.7	11.4	7.5	9.2	6.1
NW	.5	2.0	3.0	1.5	.1	.0		7.1	14.6		7.9	5.0	6.7	9.0	5.9	5.0	7.8	7.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.2							1.2	.0		1.3	.0	.4	1.4	1.0	2.5	1.3	2.2
TOT OBS	67	552	633	194	15	1	1462		13.3		307	60	252	139	297	40	228	139
TOT PCT	4.6	37.8	43.3	13.3	1.0	.1		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00	06	12	18
N	.6	3.2	1.1	.3	.0		5.2	13.3	4.3	6.5	4.9	4.9
NE	1.6	3.5	.4	.4	.0		5.9	10.9	7.2	6.7	5.4	4.3
E	3.4	9.5	4.2	.6	.1		17.7	12.7	21.3	17.8	13.2	18.2
SE	3.5	12.5	8.2	.9	.0		25.1	13.8	28.4	20.0	24.6	27.7
S	2.9	9.4	3.9	.5	.0		16.6	12.7	12.9	17.3	22.4	14.2
SW	1.9	6.3	3.4	.9	*		12.6	14.2	10.7	14.3	11.6	13.5
W	1.0	4.0	2.9	.7	*		8.7	15.2	6.7	9.1	10.9	8.0
NW	1.3	3.0	2.4	.4	.0		7.1	14.6	7.4	7.5	5.8	7.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	1.2						1.2	.0	1.1	.8	1.2	1.6
TOT OBS	255	751	387	67	2	1462		13.3	367	391	337	367
TOT PCT	17.4	51.4	26.5	4.6	.1		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1884-1969  
(OVER-ALL) 1861-1969

JULY

AREA 0019 SHARK BAY  
25.35 111.5F

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	1.1	2.7	40.9	43.3	10.6	1.4	.0	13.0	100.0	367
06009	.8	4.9	34.3	43.7	15.3	1.0	.0	13.5	100.0	391
12015	1.2	3.3	45.7	38.6	10.4	.9	.0	12.3	100.0	337
18021	1.6	2.7	31.1	47.1	16.3	.8	.3	14.3	100.0	367
TOT	17	50	552	633	194	15	1	13.3		1462
PCT	1.2	3.4	37.8	43.3	13.3	1.0	.1	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	1.9	.6	1.5	.4		3.8
NE	1.4	.5	1.9	.7		4.3
E	11.3	3.0	3.5	.5		2.1
SE	15.5	2.6	4.1	1.5		2.4
S	6.8	3.4	5.6	2.0		3.8
SW	3.5	3.8	5.2	1.9		4.4
W	1.9	2.8	3.2	2.5		4.9
NW	1.1	1.2	2.7	.5		4.7
VAR	.0	.0	.0	.0		.0
CALM	1.1	.0	.0	.0		.4
TOT OBS	209	84	130	47	470	3.4
TOT PCT	44.5	17.9	27.7	10.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL
	149	299	599	999	1999	3999	4999	6499	7999			OBS
N	.0	.0	.0	.2	.2	.5	.2	.2	.0	.0	3.2	
NE	.0	.0	.0	.4	.9	.1	.3	.0	.0	.0	2.8	
E	.0	.0	.0	.6	.3	1.9	1.1	.0	.0	.4	14.9	
SE	.0	.0	.0	.5	1.5	1.3	1.0	.1	.0	.3	19.6	
S	.0	.0	.0	.6	2.7	2.5	.7	.5	.2	.0	10.6	
SW	.0	.0	.0	.6	3.2	1.6	.7	.2	.0	.0	8.0	
W	.0	.0	.2	1.1	2.2	.5	.9	.0	.0	.0	5.5	
NW	.0	.0	.0	.4	1.2	.2	.4	.0	.0	.0	3.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	
TOT OBS	0	0	1	18	57	36	25	5	1	3	324	470
TOT PCT	.0	.0	.2	3.8	12.1	7.7	5.3	1.1	.2	.6	68.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.8	.8	.8	.8	.8	.8	.8	.8
>4000	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
>3500	6.8	7.2	7.2	7.2	7.2	7.2	7.2	7.2
>2000	14.0	14.6	14.6	14.9	14.9	14.9	14.9	14.9
>1000	24.0	26.5	26.8	27.0	27.0	27.0	27.0	27.0
>600	26.5	29.9	30.6	30.8	30.8	30.8	30.8	30.8
>300	26.8	30.1	30.8	31.0	31.0	31.0	31.0	31.0
>150	26.8	30.1	30.8	31.0	31.0	31.0	31.0	31.0
>0	26.8	30.1	30.8	31.0	31.0	31.0	31.0	31.0
TOTAL	126	142	145	146	146	146	146	146

TOTAL NUMBER OF OBS: 471

PCT FREQ NH <5/8: 69.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL
											OBS
20+3	18.0	12.0	10.2	7.1	7.9	7.5	8.3	8.7	.0	518	

PERIOD: (PRIMARY) 1864-1969  
(OVER-ALL) 1861-1969

JULY

AREA 0019 SHARK BAY  
25.35 111.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	
2<5	PCP	.0	.0	.0	*	.1	.0	.4	.0	.0	.0	.5	
	NO PCP	.0	.2	.1	.0	.1	*	.0	.0	.0	.0	.5	
	TOT %	.0	.2	.1	*	.3	*	.4	.0	.0	.0	1.1	
5<10	PCP	.3	.2	.0	.2	.4	.1	.6	.2	.0	.0	2.0	
	NO PCP	.3	.7	2.3	2.4	1.3	1.6	.8	.2	.0	.0	9.6	
	TOT %	.6	.8	2.3	2.6	1.7	1.6	1.4	.4	.0	.0	11.6	
10+	PCP	.1	*	.2	.0	.3	.4	.4	.2	.0	.0	1.6	
	NO PCP	3.9	4.8	15.6	21.2	15.3	11.4	7.7	4.4	.0	1.2	85.6	
	TOT %	4.0	4.8	15.8	21.2	15.6	11.7	8.1	4.7	.0	1.2	87.2	
TOT OBS													
TOT PCT													
		4.6	5.9	18.2	23.9	17.6	13.4	10.0	5.1	.0	1.2	100.0	562

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.1	.2	.1	.0	.0	.0	.0	.0	.4	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	11-21	.1	*	.0	.2	*	.0	.0	.0	.0	.0	.4	
	22+	.0	.1	.0	.1	.1	.2	.1	.0	.0	.0	.7	
	TOT %	.1	.1	.0	.5	.2	.2	.1	.0	.0	.0	1.3	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.1	.0	.1	*	.0	.0	.0	.0	.3	
	11-21	.0	.0	.0	*	.1	.0	.2	.0	.0	.0	.3	
	22+	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.2	.1	*	.1	*	.2	.0	.0	.0	.7	
5<10	0-3	.0	.1	.0	.2	.2	.1	.1	.1	.0	.2	1.0	
	4-10	.6	.9	4.3	3.8	2.4	1.1	.8	.7	.0	.0	14.7	
	11-21	.9	1.2	2.6	5.3	2.8	2.1	.8	.8	.0	.0	16.7	
	22+	.3	.2	.4	1.0	.5	.4	.6	.3	.0	.0	3.7	
	TOT %	1.8	2.4	7.3	10.2	6.0	3.8	2.3	1.9	.0	.2	36.0	
10+	0-3	.1	.2	.4	.4	.6	.3	.4	.4	.0	.8	3.7	
	4-10	1.7	2.1	5.0	5.5	6.1	4.3	1.8	.9	.0	.0	27.3	
	11-21	1.0	1.0	4.6	9.7	4.2	2.4	2.3	1.3	.0	.0	26.9	
	22+	.0	.1	.5	.5	.5	1.0	.5	.5	.0	.0	3.7	
	TOT %	2.8	3.5	10.5	16.1	11.4	8.1	5.2	3.2	.0	.8	61.6	
TOT OBS													
TOT PCT													
		4.8	6.3	17.9	27.1	17.8	12.2	7.8	5.1	.0	1.0	100.0	1003

JULY

PERIOD: (PRIMARY) 1884-1969  
(OVER-ALL) 1861-1969AREA 0019 SHARK BAY  
25.35 111.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	2.9	13.6	10.7	7.1	.7	.0	.7	35.7	64.3	140
05009	.0	.0	.0	2.4	12.2	7.3	4.1	1.6	.8	.8	29.3	70.7	123
12015	.0	.0	.8	4.2	7.6	3.4	1.7	.8	.0	.8	19.5	80.5	118
18021	.0	.0	.0	5.2	12.2	7.0	7.0	.9	.0	.0	32.2	67.8	115
TOT	0	0	1	18	57	36	25	5	1	3	146	350	496
PCT	.0	.0	.2	3.6	11.5	7.3	5.0	1.0	.2	.6	29.4	70.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	1.0	1.4	.3	37.9	59.4	293
06009	.0	.0	1.3	.4	32.7	65.5	223
12015	.0	.4	.8	1.2	36.8	60.9	258
18021	.0	.0	1.6	.8	38.9	58.7	247
TOT	0	4	13	7	375	622	1021
PCT	.0	.4	1.3	.7	36.7	60.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	3.0	34.3	62.7	134
06009	.0	.0	2.6	28.2	69.2	117
12015	.0	.9	6.3	14.3	79.5	112
18021	.0	.0	6.5	27.8	65.7	108
TOT	0	1	21	125	325	471
PCT	.0	.2	4.5	26.5	69.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.0	.1	.0	.0	.0	1	.1
75/79	.0	.0	.0	.1	.2	.0	.0	.0	5	.6
70/74	.0	.0	.6	2.2	3.7	4.3	2.2	.4	109	13.5
65/69	.0	.1	2.9	9.4	18.2	18.0	6.3	2.6	464	57.5
60/64	.0	.0	.8	3.3	10.2	6.6	4.0	.7	207	25.7
55/59	.0	.0	.0	.0	1.1	1.5	1.0	.0	21	2.6
TOTAL	0	1	35	122	263	247	109	30	807	100.0
PCT	.0	.1	4.3	15.1	32.6	30.6	13.5	3.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.1	.0	.0
.1	.0	.1	.0	.1	.2	.1	*	.0	.0
1.3	1.4	2.7	1.3	2.3	1.4	1.7	1.4	.0	.1
2.5	2.7	9.0	16.5	11.7	6.8	4.2	3.3	.0	.7
.3	1.0	6.5	8.2	4.2	3.6	1.7	.2	.0	.0
.0	.1	.7	1.2	.3	.2	.0	.0	.0	.0
4.2	5.2	19.1	27.1	18.5	12.2	7.7	5.0	.0	.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	82	77	73	66	60	58	56	66.0	367
06009	79	77	73	68	62	60	60	67.6	383
12015	78	75	72	67	61	59	58	66.7	331
18021	74	73	70	65	60	57	56	65.4	356
TOT	82	75	73	66	61	58	56	66.5	1437

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	17.9	31.3	34.2	14.2	2.5	59	240		
06009	.0	27.1	32.2	26.0	9.0	5.6	57	177		
12015	.0	21.8	34.5	27.7	11.2	4.9	58	206		
18021	.0	13.2	32.5	33.0	19.3	2.0	71	197		
TOT	0	162	267	250	111	30	59	820		



JULY

PERIOD: (PRIMARY) 1884-1969  
(OVER-ALL) 1861-1969

TABLE 17

AREA 0019 SHARK BAY  
25.35 111.5EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WD FOG
7/8	.0	.0	.2	.0	.0	.0	.0	1	.0	.2
6	.0	.0	.2	.4	.0	.4	.2	6	.0	1.3
5	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
4	.0	.0	.2	.2	.4	.7	.0	7	.0	1.6
3	.0	.0	.2	.4	.9	.7	.0	10	.0	2.2
2	.0	.0	.2	1.3	1.8	.2	.0	16	.0	3.6
1	.0	.4	1.6	1.1	.2	.0	.0	15	.0	3.4
0	.0	.4	2.2	3.6	.7	.0	.0	31	.0	6.9
-1	.0	.0	3.8	5.4	1.3	.0	.0	47	.0	10.5
-2	.0	1.3	6.5	2.5	.7	.0	.0	49	.0	11.0
-3	.2	.9	5.1	3.6	.4	.0	.0	46	.0	10.3
-4	.4	1.3	6.7	3.1	.0	.0	.0	52	.0	11.6
-5	.0	2.7	5.8	2.7	.0	.0	.0	50	.0	11.2
-6	.0	2.2	5.6	.2	.0	.0	.0	36	.0	8.1
-7/-8	.4	4.0	6.7	.2	.0	.0	.0	51	.0	11.4
-9/-10	.4	1.1	1.8	.0	.0	.0	.0	15	.0	3.4
-11/-13	.0	2.0	.7	.0	.0	.0	.0	12	.0	2.7
-14/-16	.0	.4	.0	.0	.0	.0	.0	2	.0	.4
TOTAL	7	76	213	111	29	10	1	447	0	447
PCT	1.6	17.0	47.7	24.8	6.5	2.2	.2	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	N	22-33	34-47	48+	PCT	1-3	4-10	11-21	NE	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.0	.4	.0	.4	.0	.0	.0	.0	.0	.4
1-2	.0	.4	.0	.0	.0	.0	.0	.4	.0	1.8	.8	.0	.0	.0	.0	2.6
3-4	.0	.7	.3	.0	.0	.0	.0	1.0	.0	.1	.5	.0	.0	.0	.0	.6
5-6	.0	.0	.0	.3	.0	.0	.0	.3	.0	.4	.8	.1	.0	.0	.0	1.3
7	.0	.0	.3	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.5	.6	.3	.0	.0	.0	2.5	.0	2.7	2.2	.1	.0	.0	.0	5.0

HGT	1-3	4-10	11-21	E	22-33	34-47	48+	PCT	1-3	4-10	11-21	SE	22-33	34-47	48+	PCT
<1	.4	1.7	.0	.0	.0	.0	.0	2.1	.0	1.2	.0	.0	.0	.0	.0	1.2
1-2	.4	2.6	.8	.0	.0	.0	.0	3.8	.0	3.4	.9	.0	.0	.0	.0	4.3
3-4	.0	3.0	4.6	.0	.0	.0	.0	7.6	.0	1.4	6.9	.0	.0	.0	.0	8.4
5-6	.0	.0	3.4	.4	.0	.0	.0	3.8	.0	.0	5.2	.0	.0	.0	.0	5.2
7	.0	.4	1.9	.3	.0	.0	.0	2.6	.0	.0	1.9	.1	.0	.0	.0	2.0
8-9	.0	.0	.0	.3	.0	.0	.0	.3	.0	.4	1.2	.1	.0	.0	.0	1.8
10-11	.0	.0	.0	.4	.3	.0	.0	.7	.0	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	7.6	10.7	1.4	.3	.0	.0	21.0	.0	6.5	16.1	.2	.1	.0	.0	22.9

AD-A044 425

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2  
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO). AUSTRAL--ETC(U)  
SEP 77

F/G 4/2

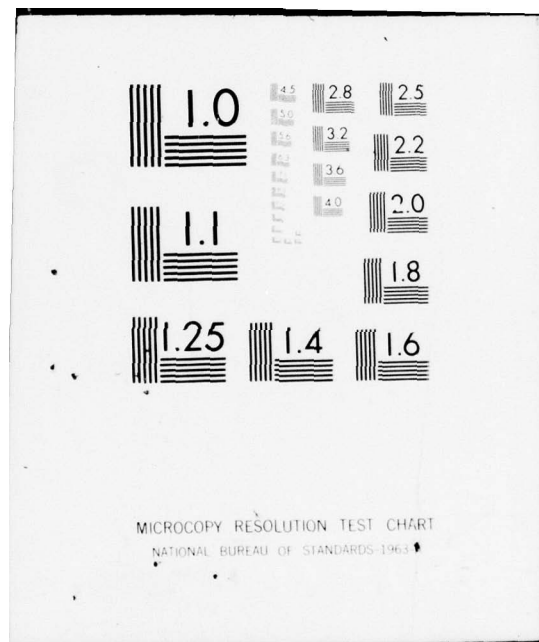
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4 OF 6

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100



PERIOD: (OVER-ALL) 1963-1969

JULY

AREA 0019 SHARK BAY  
25.35 111.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	.0	1.7	.0	.0	.0	.0	1.7	.0	1.2	.0	.0	.0	.0	1.2	
1-2	.4	2.7	1.1	.0	.0	.0	4.2	.0	3.8	.8	.0	.0	.0	4.6	
3-4	.0	3.9	4.8	.0	.0	.0	8.7	.0	2.1	.6	.0	.0	.0	2.7	
5-6	.0	.0	1.7	.0	.0	.0	1.7	.0	.0	1.0	.4	.0	.0	2.0	
7	.0	.0	.0	.6	.0	.0	.6	.0	.0	.4	.6	.0	.0	1.0	
8-9	.0	.0	.3	.0	.0	.0	.3	.0	.0	.5	.0	.0	.0	.5	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	8.3	7.9	.6	.0	.0	17.1	.0	7.6	3.4	1.0	.1	.0	12.2	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL
<1	.3	.0	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.0	.1	
1-2	.0	1.9	.8	.0	.0	.0	2.7	.0	.4	.4	.0	.0	.0	.8	
3-4	.0	1.1	2.5	.0	.0	.0	3.6	.0	1.7	1.7	.0	.0	.0	3.3	
5-6	.0	.7	2.7	.0	.0	.0	3.4	.0	.0	.9	.8	.0	.0	1.8	
7	.0	.4	.4	.4	.0	.0	1.2	.0	.0	.1	.0	.0	.0	.1	
8-9	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	4.1	6.8	.4	.3	.0	12.0	.1	2.1	3.1	.8	.0	.0	6.1	98.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	2.5	6.6	.0	.0	.0	.0	9.1	
1-2	.8	16.9	5.8	.0	.0	.0	23.5	
3-4	.0	14.0	21.8	.0	.0	.0	35.8	
5-6	.0	1.6	15.6	2.1	.0	.0	19.3	
7	.0	.8	4.9	2.1	.0	.0	7.8	
8-9	.0	.4	2.5	.4	.0	.0	3.3	
10-11	.0	.0	.0	.4	.0	.0	.8	
12	.0	.0	.0	.0	.4	.0	.0	
13-16	.0	.0	.0	.0	.4	.0	.4	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.3	40.3	50.6	4.9	.8	.0	100.0	243

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-96	87+	TOTAL	MEAN HGT
<6	.6	3.4	7.4	3.1	2.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	63	4
6-7	.0	1.1	4.0	7.7	5.4	.9	1.4	.9	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	75	6
8-9	.0	.9	1.7	3.1	7.1	4.3	2.8	.6	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	83	8
10-11	.0	.0	2.0	2.8	4.0	4.8	2.6	1.4	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	64	8
12-13	.0	.0	.3	2.0	3.4	1.1	1.1	1.1	.6	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	35	8
>13	.0	.0	.0	.0	.6	.3	.6	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	10
INDFT	.9	1.1	1.1	.3	.6	.3	.6	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	19	6
TOTAL	5	22	38	67	81	46	32	17	18	0	2	1	1	0	0	0	0	0	0	351	7
PCT	1.4	6.6	10.5	19.1	23.1	13.1	9.1	4.6	5.1	.0	.6	.3	.3	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1907-1969  
(OVER-ALL) 1859-1969

AUGUST

AREA 0019 SHARK BAY  
25.45 111.4E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	3.1	8.2	.0	.0	.0	.0	.0	11.3	11.3	.0	.0	.0	.0	.0	77.3
NE	.0	.0	4.6	.0	.0	.0	.0	4.6	.0	.0	2.3	.0	.0	4.6	88.5
E	1.5	.0	.0	.0	.0	.0	.0	1.5	.0	.0	.7	.0	.0	.0	97.8
SE	1.1	1.4	.0	.0	.0	.0	.0	2.6	.4	.6	.0	.0	.0	.0	96.4
S	.7	1.0	2.0	.0	.0	.0	.0	3.7	2.7	.0	.0	.0	.0	.0	93.7
SW	.0	2.1	1.0	.0	.0	.0	.0	3.1	1.3	.0	.0	.0	.0	.0	95.6
W	4.6	7.7	2.8	.0	.0	.0	.0	16.1	.0	.0	.0	.0	.0	.0	83.9
NW	.9	4.5	.0	.0	.0	.0	.0	5.4	4.5	.0	.0	.0	.0	.0	90.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
CALM	9.1	.0	.0	.0	.0	.0	.0	9.1	.0	9.1	.0	.0	.0	.0	81.8
TOT PCT	1.3	2.0	1.0	.0	.0	.0	.0	4.3	1.6	.3	.2	.0	.0	.2	93.4
TOT OBS:	610														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	3.3	1.3	.0	.0	.0	.0	.0	4.6	2.6	.0	.0	.0	.0	.0	92.8
06009	.7	1.3	1.3	.0	.0	.0	.0	3.4	2.0	.0	.0	.0	.0	.7	94.0
12015	.6	2.3	.6	.0	.0	.0	.0	3.5	1.2	1.2	.6	.0	.0	.0	93.6
18021	.7	2.8	2.1	.0	.0	.0	.0	5.6	.7	.0	.0	.0	.0	.0	93.7
TOT PCT	1.3	1.9	1.0	.0	.0	.0	.0	4.2	1.6	.3	.2	.0	.0	.2	93.5
TOT OBS:	518														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	1.6	.9	.3	.0	.0		2.9	10.1		1.9	1.9	5.6	3.3	3.2	.0	2.3	.8
NE	.2	1.2	.8	.1	.0	.0		2.3	9.6		2.1	10.8	3.7	1.7	1.2	.0	1.6	1.9
E	.4	4.5	4.3	1.0	.0	.0		10.3	12.4		14.6	10.8	12.3	8.3	7.6	10.3	8.3	9.0
SE	.5	8.9	16.2	3.4	.0	.0		28.9	13.9		35.4	27.4	29.2	26.2	21.7	21.6	31.1	33.1
S	.9	9.9	12.0	1.4	.0	.0		24.3	12.1		20.8	20.8	21.1	26.7	29.6	28.4	25.3	21.4
SW	.5	7.7	5.7	1.8	.1	.0		15.8	12.1		12.6	12.7	13.4	18.6	20.3	19.0	15.3	15.8
W	.7	3.6	2.8	1.1	.4	.0		8.6	13.5		6.7	6.1	8.6	8.3	8.3	13.8	9.8	11.3
NW	.2	2.2	2.2	.7	.1	.0		5.4	12.8		4.8	5.7	4.9	6.2	6.0	6.9	4.7	6.0
VAR	.1	.1	.0	.0	.0	.0		.1	3.5		.0	.0	.0	.0	.6	.0	.0	.0
CALM	1.3							1.3	.0		1.1	3.8	1.1	.8	1.5	.0	1.6	.8
TOT DBS	73	581	655	144	9	0	1452		12.5		272	53	278	121	323	29	253	133
TOT PCT	5.0	39.7	44.9	9.8	.6	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	06	12	18	21
N	.9	1.8	.3	.0	.0			2.9	10.1		1.9	4.9	2.9	1.7	
NE	.8	1.1	.4	.0	.0			2.3	9.6		3.5	3.1	1.1	1.7	
E	1.9	5.2	2.9	.3	.0			10.3	12.4		14.0	11.1	7.8	8.5	
SE	3.1	15.3	9.7	.8	.0			28.9	13.9		34.1	28.3	21.7	31.8	
S	4.3	13.9	5.9	.1	.0			24.3	12.1		20.8	22.8	29.5	24.0	
SW	3.8	8.0	3.7	.2	.1			15.8	12.1		12.6	15.0	20.2	15.5	
W	2.1	3.8	2.0	.6	.1			8.6	13.5		6.6	8.5	8.7	10.3	
NW	.9	3.1	1.3	.1	.1			5.4	12.8		4.9	5.3	6.0	5.2	
VAR	.1	.0	.0	.0	.0			.1	3.5		.0	.0	.6	.0	
CALM	1.3							1.3	.0		1.5	1.0	1.4	1.3	
TOT DBS	283	762	383	31	3	1462			12.5		323	399	352	386	
TOT PCT	19.4	52.1	26.2	2.1	.2			100.0			100.0	100.0	100.0	100.0	



PERIOD: (PRIMARY) 1907-1969  
(OVER-ALL) 1859-1969

AUGUST

AREA 0019 SHARK BAY  
25.45 111.4E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	1.5	3.7	38.2	44.6	11.7	.3	.0	12.7	100.0	325
06009	1.0	2.8	39.8	47.1	8.8	.5	.0	12.5	100.0	399
12015	1.4	5.4	40.3	43.5	8.5	.9	.0	12.1	100.0	352
18021	1.3	3.1	40.4	43.8	10.6	.8	.0	12.7	100.0	386
TOT	19	54	581	655	144	9	0	12.5		1462
PCT	1.3	3.7	39.7	44.8	9.8	.6	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.7	.6	1.1	1.2		4.3
NE	1.5	.7	1.2	.0		3.0
E	8.0	1.5	2.0	.2		1.9
SE	15.2	5.9	8.0	.5		2.8
S	11.2	5.7	6.5	1.4		3.1
SW	4.1	4.9	4.0	1.1		3.8
W	1.2	1.6	1.3	.9		4.3
NW	.7	.6	1.6	1.4		5.5
VAR	.4	.0	.0	.0		1.0
CALM	1.2	.0	.4	.4		3.6
TOT OBS	223	106	130	36	495	3.2
TOT PCT	45.1	21.4	26.3	7.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT./NM >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.3	.9	.2	.4	.0	.0	.0	2.8	
NE	.0	.0	.0	.0	.4	.2	.0	.1	.0	.0	2.6	
E	.0	.0	.0	.6	.4	.5	.2	.1	.0	.0	9.8	
SE	.0	.0	.0	.3	2.3	1.7	1.5	.4	.2	.2	22.9	
S	.0	.0	.0	.9	2.4	1.0	.9	.2	.2	.0	19.3	
SW	.0	.0	.2	.1	1.4	.4	.4	.2	.0	.0	10.5	
W	.0	.0	.2	.7	.3	.3	.2	.0	.0	.0	3.1	
NW	.0	.0	.0	.2	.7	1.1	.5	.0	.0	.0	2.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
CALM	.0	.0	.0	.2	.4	.4	.0	.0	.0	.0	1.2	
TOT OBS	0	0	2	16	46	34	20	5	2	1	369	495
TOT PCT	.0	.0	.4	3.2	9.3	6.9	4.0	1.0	.4	.2	74.5	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.6	.6	.6	.6	.6	.6	.6	.6
>5000	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
>3500	5.2	5.6	5.6	5.6	5.6	5.6	5.6	5.6
>2000	10.6	12.4	12.4	12.4	12.4	12.4	12.4	12.4
>1000	16.1	21.1	21.5	21.5	21.5	21.5	21.5	21.5
>600	20.3	24.1	24.7	24.7	24.7	24.7	24.7	24.7
>300	20.7	24.5	25.1	25.1	25.1	25.1	25.1	25.1
>150	20.7	24.5	25.1	25.1	25.1	25.1	25.1	25.1
>0	20.7	24.5	25.1	25.1	25.1	25.1	25.1	25.1
TOTAL	104	123	126	126	126	126	126	126

TOTAL NUMBER OF OBS: 502

PCT FREQ NH <5/8: 74.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	21.5	16.6	12.2	13.6	9.5	6.4	5.7	7.2	7.3	.0	559

PERIOD: (PRIMARY) 1907-1969  
(OVER-ALL) 1859-1969

AUGUST

AREA 0019 SHARK BAY  
25.45 111.4E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.1	.0	.2	.0	.2	.0	.0	*	.0	.0	.5	
	NO PCP	.0	.2	.3	.3	.3	.0	.0	.2	.0	.0	1.3	
	TOT %	.1	.2	.5	.3	.5	.0	.0	.2	.0	.0	1.8	
5<10	PCP	.2	.0	.0	.1	.2	.2	.5	*	.0	.2	1.3	
	NO PCP	.9	.3	.7	2.5	2.2	2.6	1.4	1.1	.0	.0	12.0	
	TOT %	1.1	.3	.7	2.6	2.5	2.7	1.8	1.1	.0	.2	13.3	
10+	PCP	.2	.2	.0	.7	.5	.3	.5	.2	.0	.0	2.5	
	NO PCP	2.6	2.7	9.8	24.9	21.2	12.6	3.5	3.1	.3	1.6	82.5	
	TOT %	2.7	2.9	9.8	25.6	21.7	13.0	4.0	3.3	.3	1.6	84.9	
TOT OBS													610
TOT PCT		4.0	3.6	11.0	28.5	24.6	15.7	5.9	4.6	.3	1.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.2	*	.1	*	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.2	.1	.1	*	.0	.0	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.4	.0	.2	.0	.0	.0	.0	.6	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.5	.1	.2	.0	.0	.0	.0	.8	
2<5	0-3	.1	.0	.0	.0	.6	.0	.0	*	.0	.0	.1	
	4-10	.0	.0	.0	.0	.1	.0	.0	.1	.0	.0	.2	
	11-21	*	.1	.2	.1	.2	.0	.0	*	.0	.0	.7	
	22+	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.1	.1	.3	.2	.3	.0	.0	.2	.0	.0	1.2	
5<10	0-3	.1	.1	.1	.2	.3	.1	.7	.1	.0	.4	2.1	
	4-10	.6	.4	1.0	2.1	2.6	3.3	2.0	1.4	.0	.0	13.3	
	11-21	.5	.2	.9	4.1	4.1	2.6	1.5	.9	.0	.0	14.6	
	22+	.0	.0	.2	.7	.7	1.1	.7	.9	.0	.0	3.8	
	TOT %	1.1	.7	2.1	7.1	7.7	7.2	4.8	2.7	.0	.4	33.9	
10+	0-3	.1	.1	.2	.1	.8	.3	.2	.0	.1	1.0	2.9	
	4-10	1.6	1.4	3.1	6.5	6.8	4.9	1.7	1.2	.1	.0	27.3	
	11-21	.5	.6	2.9	10.2	8.8	4.1	1.2	1.1	.0	.0	29.5	
	22+	.2	.1	.5	1.7	.7	.7	.0	.1	.0	.0	4.0	
	TOT %	2.4	2.2	6.7	18.6	17.1	10.0	3.1	2.4	.2	1.0	63.7	
TOT OBS													1025
TOT PCT		3.7	3.0	9.3	26.5	25.3	17.5	7.9	5.2	.2	1.4	100.0	

AUGUST

PERIOD: (PRIMARY) 1907-1969  
(COVER-ALL) 1859-1969AREA 0019 SHARK BAY  
25.45 111.4E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOT'L DBS
00003	.0	.0	.8	3.8	10.7	8.4	3.8	1.5	.8	.8	30.5	69.5	131
06009	.0	.0	.0	3.7	9.6	3.7	4.4	.7	.0	.0	22.2	77.8	135
12015	.0	.0	.0	.7	8.8	4.4	2.9	.7	.0	.0	17.5	82.5	137
18021	.0	.0	.8	3.8	5.3	9.0	3.8	.8	.8	.0	24.1	75.9	133
TOT	0	0	2	16	46	34	20	5	2	1	126	410	536
PCT	.0	.0	.4	3.0	8.6	6.3	3.7	.9	.4	.2	23.5	76.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL DBS
00003	.0	.8	1.9	1.5	31.7	64.1	259
06009	.0	.8	.8	.4	27.7	70.2	242
12015	.0	.7	.4	2.1	38.3	58.5	282
18021	.0	.0	.0	.4	37.8	61.8	262
TOT	0	6	8	12	356	663	1045
PCT	.0	.6	.8	1.1	34.1	63.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ ANDS+	NH <5/8 AND 5+	TOTAL DBS
00003	.0	.8	5.8	27.5	66.7	120
06009	.0	.0	3.9	19.4	76.7	129
12015	.0	.0	1.5	16.9	81.5	130
18021	.0	.8	4.9	21.1	74.0	123
TOT	0	2	20	106	376	502
PCT	.0	.4	4.0	21.1	74.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL DBS	PCT FREQ
75/79	.0	.0	.0	.1	.1	.1	.0	.0	3	.4
70/74	.0	.2	1.1	2.4	7.9	2.0	1.4	.4	87	10.5
65/69	.0	.1	1.6	10.5	17.3	15.8	9.3	2.9	477	57.5
60/64	.0	.0	.7	5.2	10.7	7.1	3.9	1.7	243	29.3
55/59	.0	.0	.0	.1	.7	.7	.4	.2	18	2.2
50/54	.0	.0	.0	.0	.1	.0	.1	.0	2	.2
TOTAL	0	3	28	152	265	214	125	43	830	100.0
PCT	.0	.4	3.4	18.3	31.9	25.8	15.1	5.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
75/79	.1	.1	.0	.0	.1	.1	.0	.0	.0	.0
70/74	1.2	1.5	1.8	2.0	2.1	1.4	.5	.7	.0	.2
65/69	2.1	1.5	3.7	16.4	15.1	9.7	4.5	3.4	.1	.8
60/64	.5	.6	3.2	8.3	7.2	7.0	1.6	.4	.1	.5
55/59	.1	.1	.4	.5	.6	.4	.1	.0	.0	.0
50/54	.0	.0	.1	*	.1	.0	.0	.0	.0	.0
TOTAL	4.0	2.9	9.1	27.2	25.2	18.6	6.6	4.5	.2	1.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL DBS
00003	83	79	72	65	60	56	54	65.8	318
06009	84	77	73	67	62	60	58	67.4	393
12015	80	78	71	66	62	59	59	66.2	352
18021	72	71	70	65	60	59	54	64.8	368
TOT	84	77	72	66	61	59	54	66.1	1431

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL DBS
00003	.0	20.4	32.0	24.8	18.4	4.4	70	206
06009	.0	34.5	32.0	22.3	9.1	2.0	55	197
12015	.0	18.2	31.2	28.6	15.2	6.9	70	231
18021	.0	17.6	31.5	26.4	16.7	7.9	71	216
TOT	0	190	269	218	127	46	59	850

## AUGUST

PERIOD: (PRIMARY) 1907-1969  
(OVER-ALL) 1859-1969

TABLE 17

AREA 0019 SHARK BAY  
25.45 111.4EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.0	.0	.4	2	.0	.4
7/8	.0	.0	.0	.2	.2	.2	.2	.0	4	.0	.8
6	.0	.0	.0	.2	.2	.0	.2	.0	3	.0	.6
5	.0	.0	.0	.2	.0	.6	.2	.0	5	.0	1.0
4	.0	.0	.0	.2	.4	.0	.2	.0	4	.0	.8
3	.0	.0	.4	.0	.6	.6	.4	.0	13	.0	2.7
2	.0	.0	.2	.2	1.2	.8	.0	.0	12	.0	2.5
1	.0	.0	.6	1.2	2.7	.4	.0	.0	24	.0	4.9
0	.0	.0	.8	2.1	4.5	.0	.0	.0	36	.0	7.4
-1	.0	.2	.8	6.0	2.5	.4	.0	.0	48	.0	9.9
-2	.0	.0	1.0	5.6	3.7	.0	.0	.0	50	.0	10.3
-3	.0	.0	2.3	8.7	1.2	.0	.0	.0	59	.0	12.2
-4	.0	.0	4.1	9.3	.8	.0	.0	.0	69	.0	14.2
-5	.0	.2	3.5	7.4	.4	.0	.0	.0	56	.0	11.5
-6	.0	.2	2.7	4.5	.2	.0	.0	.0	37	.0	7.6
-7/-8	.0	.4	3.1	.2	.0	.0	.0	.0	36	.0	7.4
-9/-10	.0	.4	2.5	1.2	.0	.0	.0	.0	20	.0	4.1
-11/-13	.2	1.0	.2	.0	.0	.0	.0	.0	7	.0	1.4
TOTAL	1		111		92		6		485		485
PCT	.2	2.5	22.9	50.7	19.0	3.1	1.2	.4	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	.6	.0	.0	.0	.0	.9	.0	.1	.0	.0	.0	.0	.1
1-2	.0	.9	.4	.0	.0	.0	1.3	.4	2.0	.4	.0	.0	.0	2.7
3-4	.0	1.3	1.4	.0	.0	.0	2.6	.0	.4	.4	.0	.0	.0	.7
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	2.8	1.7	.0	.0	.0	4.8	.4	2.4	1.4	.0	.0	.0	4.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
1-2	.0	3.7	1.3	.0	.0	.0	4.0	.4	5.6	1.4	.0	.0	.0	7.4
3-4	.0	.7	1.6	.0	.0	.0	2.4	.0	3.1	6.9	.0	.0	.0	10.0
5-6	.0	.4	2.6	.0	.0	.0	3.0	.0	.4	4.3	.2	.0	.0	4.8
7	.0	.4	.6	.4	.0	.0	1.4	.0	.0	2.1	1.2	.0	.0	3.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.1
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.2	5.2	.7	.0	.0	11.1	.4	9.1	14.7	2.8	.0	.0	27.0

PERIOD: (OVER-ALL) 1963-1969

AUGUST

AREA 0019 SHARK BAY  
25.45 111.4E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6	.0	1.1	.0	.0	.0	.0	1.1
1-2	.0	.0	1.5	.0	.0	.0	9.4	.0	4.0	.8	.0	.0	.0	4.8
3-4	.0	2.2	5.4	.0	.0	.0	7.6	.0	1.3	1.3	.0	.0	.0	2.5
5-6	.0	.0	6.6	1.3	.0	.0	7.9	.0	.0	3.5	.4	.0	.0	3.9
7	.0	.0	1.3	.3	.0	.0	1.5	.0	.0	1.4	.4	.0	.0	1.8
8-9	.0	.0	.4	.0	.0	.0	.4	.0	.0	.7	.0	.0	.0	.7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	10.7	15.2	1.5	.0	.0	27.4	.0	6.3	7.9	.7	.0	.0	14.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	.3	.0	.0	.0	.0	.6	.1	.1	.0	.0	.0	.0	.2	
1-2	.0	.6	.6	.0	.0	.0	1.3	.0	.6	.4	.0	.0	.0	1.0	
3-4	.0	1.4	.0	.0	.0	.0	1.4	.0	1.3	.5	.0	.0	.0	1.7	
5-6	.0	.0	.7	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.3	.4	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	2.4	2.0	.4	.0	.0	5.1	.1	2.0	.8	.0	.0	.0	2.9	97.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.6	2.9	.0	.0	.0	.0	6.5	
1-2	.7	25.3	5.8	.0	.0	.0	31.8	
3-4	.0	11.6	17.3	.0	.0	.0	28.9	
5-6	.0	.7	18.4	1.8	.0	.0	20.9	
7	.0	.4	5.8	2.2	.0	.0	8.3	
8-9	.0	.0	1.1	.0	.0	.0	1.1	
10-11	.0	.0	.0	.4	.0	.0	.4	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.4	.7	.0	.0	1.1	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	1.1	.0	.0	1.1	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.3	40.8	48.7	6.1	.0	.0	100.0	277

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.2	6.9	8.4	7.6	1.4	.2	1.4	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	117	4
4-7	.0	1.9	5.2	7.9	5.0	1.2	.7	1.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	103	5
8-9	.0	.0	.5	2.9	3.8	4.5	2.4	1.2	.7	.5	1.0	.0	.0	.0	.0	.0	.0	.0	.0	73	9
10-11	.0	.2	1.0	.5	1.4	2.4	3.3	.5	1.4	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	48	9
12-13	.0	.0	.5	1.4	1.2	1.2	1.0	1.2	.7	.7	.2	.0	.0	.0	.0	.0	.0	.0	.0	34	9
>13	.0	.0	.0	1.4	.5	.2	.5	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	13	8
INDET	1.4	1.4	.5	1.0	.7	1.0	.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	5
TOTAL	11	44	71	95	59	47	42	21	17	5	6	0	1	0	0	0	0	0	0	419	6
PCT	2.6	10.5	16.9	22.7	14.1	11.2	10.0	5.0	4.1	1.2	1.4	.0	.2	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1913-1971  
(OVER-ALL) 1855-1971

SEPTEMBER

AREA 0019 SHARK BAY  
25.45 111.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	28.6	.0	.0	.0	.0	.0	.0	28.6	.0	.0	.0	.0	.0	.0	.0	71.4
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	1.4	.0	.0	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	98.6
SE	.8	.0	.8	.0	.0	.0	.0	1.5	.5	.0	.0	.0	.0	.0	.0	98.0
S	.3	.7	.2	.0	.0	.0	.0	1.2	.7	.4	.0	.0	.0	.0	.0	97.7
SW	2.1	4.6	.0	.0	.0	.0	.0	6.7	2.8	.0	.0	.0	.0	.0	.0	90.6
W	1.7	4.2	1.7	.0	.0	.0	.0	7.6	.0	.0	.0	.0	.0	.0	.0	92.4
NW	.0	2.4	.0	.0	.0	.0	.0	2.4	4.7	.0	.0	.0	.0	.0	.0	92.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.0	1.4	.4	.0	.0	.0	.0	2.8	1.0	.1	.0	.0	.0	.0	.0	96.1
TOT OBS:	715															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
00003	.0	2.6	1.1	.0	.0	.0	.0	3.7	2.1	.0	.0	.0	.0	.0	.0	94.2
06009	.0	2.2	.5	.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0	.0	.0	97.3
12015	2.7	.0	.0	.0	.0	.0	.0	2.7	1.6	.0	.0	.0	.0	.0	.0	95.7
18021	1.2	1.2	.0	.0	.0	.0	.0	2.3	.0	.6	.0	.0	.0	.0	.0	97.1
TOT PCT	1.0	1.5	.4	.0	.0	.0	.0	2.9	1.0	.1	.0	.0	.0	.0	.0	96.0
TOT OBS:	729															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	.5	.2	.0	.0	.0		.9	8.3		1.0	1.6	1.0	2.1	.6	.0	.2	1.1
NE	.2	.6	.2	.0	.0	.0		1.0	8.0		2.6	4.8	1.4	.0	.2	.0	.2	.0
E	.4	1.6	2.5	.7	.0	.0		5.2	13.4		8.2	10.3	4.8	1.7	3.5	2.8	4.5	6.3
SE	.4	7.2	15.4	3.5	.1	.0		26.6	14.5		30.2	17.8	31.9	20.2	22.3	17.0	28.1	27.4
S	.8	10.5	21.9	3.6	.1	.0		36.8	13.8		33.5	32.9	31.8	39.7	40.2	43.4	40.6	35.2
SW	.4	7.5	7.8	1.2	.1	.0		16.9	12.0		13.4	15.9	13.6	24.8	19.3	26.4	17.4	15.4
W	.3	4.5	2.3	.4	.0	.0		7.6	10.5		7.0	9.5	9.5	7.4	9.0	7.5	4.1	7.0
NW	.3	2.1	1.7	.1	.0	.0		4.2	10.2		4.2	5.2	4.3	3.3	4.3	2.8	3.4	5.9
VAR	.1	.0	.0	.0	.0	.0		.1	2.0		.0	.0	.0	.0	.3	.0	.0	.0
CALM	.8							.8	.0		.0	.0	1.7	.8	.3	.0	1.5	.7
TOT OBS	58	540	811	148	4	0	1561		13.0		305	63	294	121	330	53	259	136
TOT PCT	3.7	34.6	52.0	9.5	.3	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	.5	.3	.1	.0	.0		.9	8.3	1.1	1.3	.5	.5	
NE	.4	.7	.0	.0	.0		1.0	8.0	3.0	1.0	.1	.1	
E	.9	2.4	1.8	.1	.0		5.2	13.4	8.6	3.9	3.4	5.1	
SE	2.6	13.3	10.3	.4	.0		26.6	14.5	28.4	28.5	21.5	27.8	
S	4.5	19.5	12.4	.5	.0		36.8	13.8	33.4	34.1	40.7	39.1	
SW	3.6	9.3	3.7	.2	.1		16.9	12.0	13.8	16.9	20.3	16.7	
W	2.0	4.4	1.0	.2	.0		7.6	10.5	7.4	8.9	8.8	5.1	
NW	1.2	2.3	.6	.0	.0		4.2	10.2	4.3	4.0	4.1	4.2	
VAR	.1	.0	.0	.0	.0		.1	2.0	.0	.0	.3	.0	
CALM	.8						.8	.0	.0	1.4	.3	1.3	
TOT OBS	255	813	468	23	2	1561		13.0	368	415	383	395	
TOT PCT	16.3	52.1	30.0	1.5	.1		100.0		100.0	100.0	100.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1913-1971  
(OVER-ALL) 1855-1971

AREA 0019 SHARK BAY  
25.45 111.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						PCT FREQ	TOTAL OBS	
		1-3	4-10	11-21	22-33	34-47	48+			
00003	.0	4.9	38.0	46.7	10.3	.0	.0	12.7	100.0	268
06009	1.4	2.2	34.2	53.3	8.7	.2	.0	13.1	100.0	415
12015	.3	2.9	33.2	53.3	10.2	.3	.0	13.2	100.0	383
18021	1.3	2.0	33.2	54.2	8.9	.5	.0	13.2	100.0	395
TOT	12	46	340	811	148	4	0	13.0		1561
PCT	.8	2.9	34.6	52.0	9.5	.3	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL OBS	MEAN CLOUD COVER
N	.0	.4	.0	.0		3.3
NE	.5	*	.2	.0		2.6
E	3.6	.3	.9	.0		1.6
SE	14.6	5.1	6.5	1.0		2.6
S	20.8	7.8	8.1	3.0		2.8
SW	5.9	3.5	4.2	1.1		3.5
W	2.2	1.6	3.4	.6		4.3
NW	1.7	.6	.9	.4		3.4
VAR	.2	.0	.0	.0		.0
CALM	.7	.0	.2	.3		3.4
TOT OBS	306	118	149	39	612	2.9
TOT PCT	50.0	19.3	24.3	6.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)  
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

WIND DIR	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8	TOTAL ANY HGT
N	149	299	599	999	1999	3499	4999	6499	7999		.4	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6
E	.0	.0	.0	.0	.2	.0	.3	.0	.2	.0	.0	4.0
SE	.0	.0	.0	.7	2.5	1.6	1.0	.7	.0	.0	.0	20.7
S	.0	.2	.0	.7	3.2	3.1	1.4	.4	.0	.4	.0	30.2
SW	.0	.0	.2	.2	1.8	.7	1.1	.1	.0	.1	.0	10.6
W	.0	.0	.0	.0	.9	1.1	.6	.1	.0	.0	.0	5.0
NW	.0	.0	.3	.2	.2	.3	.1	.0	.0	.0	.0	2.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
CALM	.0	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.7
TOT OBS	0	1	3	12	55	43	27	8	2	3	458	612
TOT PCT	.0	.2	.5	2.0	9.0	7.0	4.4	1.3	.3	.5	74.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.8	.8	.8	.8	.8	.8	.8	.8
>5000	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
>3500	6.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
>2000	13.0	13.3	13.3	13.3	13.3	13.3	13.3	13.3
>1000	20.5	22.2	22.3	22.3	22.3	22.3	22.3	22.3
>600	22.2	24.1	24.2	24.2	24.2	24.2	24.2	24.2
>300	22.3	24.2	24.6	24.7	24.7	24.7	24.7	24.7
>150	22.5	24.4	24.7	24.9	24.9	24.9	24.9	24.9
>0	22.5	24.4	24.7	24.9	24.9	24.9	24.9	24.9
TOTAL	140	152	154	155	155	155	155	155

TOTAL NUMBER OF OBS: 623

PCT FREQ NH < 5/8: 75.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
28.3	14.9	13.0	11.5	6.7	5.0	7.0	8.6	5.1	.0	686

SEPTEMBER

PERIOD: (PRIMARY) 1913-1971  
(OVER-ALL) 1855-1971

AREA 0019 SHARK BAY  
25.45 111.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	
2<5	PCP	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.3	
	TOT %	.0	.0	.0	.2	.2	.1	.0	.0	.0	.0	.6	
5<10	PCP	.1	.0	.0	.2	.3	.4	.0	.0	.0	.0	1.1	
	NO PCP	.1	.0	.5	1.9	1.7	1.9	.7	.3	.0	.0	7.1	
	TOT %	.2	.0	.5	2.1	2.1	2.3	.7	.3	.0	.0	8.3	
10+	PCP	.0	.0	.1	.1	.1	.3	.6	.1	.0	.0	1.3	
	NO PCP	.2	.9	4.3	25.2	36.0	12.3	7.0	2.6	.1	1.1	89.8	
	TOT %	.2	.9	4.4	25.2	36.1	12.6	7.7	2.6	.1	1.1	91.0	
TOT OBS													715
TOT PCT		.5	.9	4.9	27.6	38.4	15.2	8.3	3.0	.1	1.1	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.1	.0	*	*	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.2	.1	.2	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.2	.5	.4	.0	.1	.0	.0	1.3	
	22+	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.4	.7	.7	.0	.1	.0	.0	1.9	
2<5	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	4-10	.0	.0	.0	*	.1	*	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.1	.1	.1	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1	
	TOT %	.0	.0	.0	.2	.3	.1	.1	.0	.0	.0	.7	
5<10	0-3	.0	.0	.1	.3	.2	.1	.0	.0	.0	.0	.8	
	4-10	.1	.1	.5	2.5	3.6	3.0	1.3	.7	.0	.0	11.8	
	11-21	.1	.0	.5	3.2	6.7	3.2	.5	.7	.0	.0	14.8	
	22+	.0	.0	.1	.6	.8	.3	.0	.0	.0	.0	1.8	
	TOT %	.2	.1	1.2	6.6	11.5	6.6	1.8	1.3	.0	.0	29.1	
10+	0-3	.1	.3	.3	.2	.5	.4	.3	.1	.1	.7	3.0	
	4-10	.4	.6	1.1	5.1	7.5	4.9	3.6	1.5	.0	.0	24.6	
	11-21	.0	.1	1.1	10.4	15.7	4.0	1.6	.5	.0	.0	33.4	
	22+	.0	.0	.4	2.8	2.7	.7	.4	.1	.0	.0	7.1	
	TOT %	.5	.9	2.9	18.4	26.4	10.0	5.9	2.2	.1	.7	68.0	
TOT OBS													1189
TOT PCT		.7	1.0	4.1	25.6	38.8	17.6	7.8	3.7	.1	.7	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1913-1971  
(OVER-ALL) 1855-1971

AREA 0019 SHARK BAY  
25.45 111.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.0	.0	1.2	1.8	11.0	6.7	7.3	.6	.6	.0	29.3	70.7	164
06009	.0	.0	.0	1.2	6.4	6.4	4.0	1.7	.6	.0	20.8	79.2	173
12015	.0	.6	.6	1.2	6.8	5.6	2.5	.6	.0	1.2	19.1	80.9	162
18021	.0	.0	.0	3.0	9.6	6.6	2.4	1.8	.0	.6	24.1	75.9	166
TOT	0	1	3	12	56	43	27	8	2	3	155	510	665
PCT	.0	.2	.5	1.8	8.4	6.5	4.1	1.2	.3	.5	23.3	76.7	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.6	.0	2.6	.6	27.3	68.8	311
06009	.0	.0	1.4	.4	25.5	72.7	282
12015	.3	.3	2.7	.9	33.2	62.6	334
18021	.0	.3	1.0	.7	32.2	65.8	295
TOT	3	2	24	8	363	822	1222
PCT	.2	.2	2.0	.7	29.7	67.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NH) AND/OR  
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.0	1.3	3.3	28.3	68.4	152
06009	.0	.0	1.2	20.1	78.7	169
12015	.0	2.0	3.3	17.9	78.8	151
18021	.0	.0	4.0	22.5	73.5	151
TOT	0	5	18	138	467	623
PCT	.0	.8	2.9	22.2	75.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
75/79	.0	.0	.0	.4	.4	.6	.0	.0	15	1.5
70/74	.0	.1	.4	2.2	5.4	5.1	2.6	1.1	167	17.0
65/69	.0	.0	.4	4.2	14.1	18.6	15.7	5.1	570	58.0
60/64	.0	.0	.1	2.0	7.9	8.1	3.0	1.0	218	22.2
55/59	.0	.0	.0	.1	.2	.5	.1	.3	12	1.2
TOTAL	0	1	9	89	275	324	210	74	982	100.0
PCT	.0	.1	.9	9.1	28.0	33.0	21.4	7.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.3	.5	.5	.2	.0	.1	.0	.0
.2	.4	.9	3.5	7.0	3.2	.6	.8	.0	.4
.2	.4	1.9	13.7	23.3	10.2	5.7	2.3	.1	.3
.0	.0	.8	6.5	9.0	4.3	1.2	.3	.0	.1
.0	.0	.1	.4	.3	.5	.1	.0	.0	.0
.3	.8	3.9	24.5	40.1	18.4	7.6	3.5	.1	.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	82	75	73	66	61	59	58	66.6	364
06009	77	76	74	68	62	60	57	68.1	405
12015	82	76	72	67	62	60	60	66.9	378
18021	72	71	69	65	61	59	57	65.1	393
TOT	82	76	72	67	61	59	57	66.7	1540

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	10.8	26.2	37.7	19.6	5.8	73	260		
06009	.0	18.2	35.1	28.6	14.3	3.9	59	231		
12015	.0	6.7	25.6	30.4	27.4	10.0	75	270		
18021	.0	5.2	25.7	34.5	23.7	10.8	75	249		
TOT	0	101	282	332	217	78	73	1010		

SEPTEMBER

PERIOD: (PRIMARY) 1913-1971  
(OVER-ALL) 1855-1971

TABLE 17

AREA 0019 SHARK BAY  
25.45 111.6E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.2	.0	1	.0	.2
9/10	.0	.0	.2	.0	.0	.0	1	.0	.2
7/8	.0	.0	.2	.5	.2	.0	5	.0	.9
6	.0	.0	.0	.0	.2	.2	2	.0	.4
5	.0	.0	.7	.2	.7	.4	11	.0	1.9
4	.0	.2	.2	.5	.2	.2	7	.0	1.2
3	.0	.0	.0	.7	.4	.0	6	.0	1.1
2	.0	.5	1.9	3.0	1.6	.0	40	.0	7.1
1	.0	.4	2.1	3.4	.5	.0	36	.0	6.4
0	.0	.4	4.2	5.8	.2	.0	60	.0	10.6
-1	.0	1.4	7.8	3.9	.0	.0	74	.0	13.1
-2	.4	1.4	7.6	3.4	.0	.0	72	.0	12.7
-3	.0	2.1	9.6	1.4	.0	.0	74	.0	13.1
-4	.2	2.7	6.1	1.6	.0	.0	71	.0	12.6
-5	.2	2.8	3.7	.2	.0	.0	39	.0	6.9
-6	.5	3.4	1.6	.0	.0	.0	31	.0	5.5
-7/-8	.7	3.2	.9	.0	.0	.0	27	.0	4.8
-9/-10	.0	.9	.4	.0	.0	.0	7	.0	1.2
-11/-13	.2	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	12		278		23		565	0	565
PCT	2.1	19.3	49.2	24.6	4.1	.7	100.0		100.0

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.2	.0	.0	.0	.0	.2	.0	1.1	.0	.0	.0	.0	1.1
1-2	.0	.7	.0	.0	.0	.0	.7	.0	2.3	.4	.0	.0	.0	2.7
3-4	.0	.3	1.3	.2	.0	.0	1.8	.0	1.2	6.0	.6	.0	.0	7.9
5-6	.0	.0	1.0	.5	.0	.0	1.4	.0	.7	4.3	.7	.0	.0	5.6
7	.0	.0	.0	.3	.0	.0	.3	.0	.0	2.1	1.2	.0	.0	3.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	1.6	.0	.0	2.9
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	1.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.2	2.2	1.0	.0	.0	4.4	.0	5.3	14.1	5.1	.1	.0	24.6



PERIOD: (OVER-ALL) 1963-1971

SEPTEMBER

AREA 0019 SHARK BAY  
25.45 111.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S								SW							
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.3	.0	.0	.0	.0	.0	.3	.3	.6	.0	.0	.0	.0	.9	
1-2	.3	5.7	1.5	.0	.0	.0	7.5	.0	3.5	1.6	.0	.0	.0	5.1	
3-4	.0	2.6	13.9	.3	.0	.0	16.8	.0	1.7	1.7	.5	.0	.0	3.9	
5-6	.0	1.5	10.1	1.6	.0	.0	13.1	.0	.0	1.6	.0	.0	.0	1.6	
7	.0	.3	2.9	1.5	.0	.0	4.7	.0	.0	1.2	.9	.0	.0	2.1	
8-9	.0	.3	1.2	1.4	.0	.0	2.8	.0	.0	.0	.5	.0	.0	.5	
10-11	.0	.0	.0	.9	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	10.4	29.6	5.6	.2	.0	46.3	.3	5.8	6.2	2.0	.0	.0	14.2	

W								NW								TOTAL
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT	
<1	.0	.4	.0	.0	.0	.0	.4	.0	.1	.0	.0	.0	.0	.1		
1-2	.0	2.7	.5	.0	.0	.0	3.2	.0	.8	.3	.0	.0	.0	1.2		
3-4	.0	.8	.7	.0	.0	.0	1.5	.0	.4	.3	.0	.0	.0	.7		
5-6	.0	.0	.7	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0		
7	.0	.0	.0	.3	.0	.0	.3	.0	.0	.3	.3	.0	.0	.5		
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.0	3.9	1.9	.3	.0	.0	6.1	.0	1.3	.9	.3	.0	.0	2.4	98.4	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	2.4	2.4	.0	.0	.0	.0	4.9	
1-2	.3	16.0	4.3	.0	.0	.0	20.6	
3-4	.0	7.0	23.8	1.6	.0	.0	32.5	
5-6	.0	2.2	17.6	2.7	.0	.0	22.5	
7	.0	.3	6.5	4.3	.0	.0	11.1	
8-9	.0	.3	2.4	3.5	.0	.0	6.2	
10-11	.0	.0	.0	1.9	.0	.0	1.9	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.3	.0	.3	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	2.7	28.2	54.7	14.1	.3	.0	100.0	369

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.4	4.8	8.0	2.5	1.5	1.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	99
6-7	.0	1.3	4.2	10.3	8.7	5.3	1.3	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	167
8-9	.0	.2	1.7	4.2	5.7	5.3	1.9	1.7	.8	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	114
10-11	.0	.0	.4	1.5	3.0	3.4	1.5	1.0	1.3	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	64
12-13	.0	.0	1.7	.2	1.1	1.3	.8	.8	1.1	.4	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	43
>13	.0	.0	.0	.0	.4	.6	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10
INDET	.4	.0	.8	1.3	1.3	.8	.2	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	28
TOTAL	4	33	88	106	115	96	34	18	26	3	1	1	1	0	0	0	0	0	0	0	524
PCT	.8	6.3	16.7	20.2	21.9	18.3	6.5	3.4	4.9	.6	.2	.2	.2	.0	.0	.0	.0	.0	.0	.0	100.0

## OCTOBER

PERIOD: (PRIMARY) 1887-1969  
(OVER-ALL) 1855-1969

AREA 0019 SHARK BAY  
25.4S 111.3E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.6	.0	.0	.0	.0	97.4
SE	.9	.7	.0	.0	.0	.0	.0	1.6	.2	1.0	.0	.0	.7	.0	96.5
S	.8	.4	.2	.0	.0	.0	.0	1.4	.6	.0	.0	.0	.6	.4	97.1
SW	1.9	.0	1.6	.0	.0	.0	.0	3.4	.3	.0	.0	.0	1.9	.0	94.4
W	1.5	2.1	2.1	.0	.0	.0	.0	5.7	.0	.0	.0	.0	1.5	.0	92.8
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.0	.5	.5	.0	.0	.0	.0	2.0	.3	.3	.0	.0	.8	.2	96.4
TOT OBS:	511														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	ORZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT 08 TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	
0603	2.3	.6	1.2	.0	.0	.0	.0	4.1	.0	.0	.0	.0	1.2	.0	94.8
0609	.0	.7	.7	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.7	.0	98.0
12015	.0	.6	.0	.0	.0	.0	.0	.6	.0	.6	.0	.0	.6	.0	98.1
18021	2.2	.0	.0	.0	.0	.0	.0	2.2	1.4	.7	.0	.0	.7	.7	94.2
TOT PCT	1.1	.5	.5	.0	.0	.0	.0	2.1	.3	.3	.0	.0	.8	.2	96.3
TOT OBS:	517														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.0	.5	.5	.0	.0	.0		1.0	11.5	1.6	.0	.6	.8	.9	.0	.8	1.4	
NE	.0	.2	.0	.1	.0	.0		.3	11.0	.5	1.2	.2	.0	.3	.0	.0	.7	
E	.1	1.1	1.0	.5	.1	.0		2.8	14.2	4.2	5.8	3.6	3.4	1.9	.0	1.6	1.4	
SE	.4	5.4	14.1	5.6	.8	.0		25.5	15.9	31.6	23.3	31.6	16.8	16.9	13.2	24.3	31.0	
S	.4	11.4	21.1	6.6	.2	.0		39.7	14.8	35.2	43.0	37.6	43.3	44.8	51.3	39.7	35.5	
SW	.3	8.4	9.0	1.2	.1	.0		19.1	12.3	18.2	15.7	15.3	20.6	20.7	28.9	20.1	21.1	
W	.4	3.3	3.7	.4	.0	.0		7.9	11.9	5.7	9.9	7.9	10.5	10.3	1.3	8.1	5.5	
NW	.0	1.3	1.8	.2	.0	.0		3.3	12.5	3.1	1.2	2.5	4.6	3.5	5.3	4.1	3.2	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.5							.5	.0	.0	.0	.6	.0	.7	.0	1.2	.0	
TOT OBS	31	466	759	216	7	0	1479		14.2	292	43	309	119	295	38	241	142	
TOT PCT	2.1	31.5	51.3	14.6	.5	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.1	.7	.2	.0	.0		1.0	11.5	1.4	.7	.8	1.0
NE	.1	.1	.1	.0	.0		.3	11.0	.5	.1	.3	.3
E	.8	.8	.8	.3	.0		2.8	14.2	4.4	3.5	1.7	1.5
SE	2.0	11.2	10.9	1.5	.0		25.5	15.9	30.5	27.5	16.4	26.8
S	3.4	20.7	14.0	1.6	.0		39.7	14.8	36.2	39.2	45.6	38.2
SW	2.9	11.5	4.3	.3	.1		19.1	12.3	17.8	16.8	21.6	20.5
W	1.7	4.0	2.0	.1	.0		7.9	11.9	6.2	8.6	9.3	7.2
NW	.4	2.1	.9	.0	.0		3.3	12.5	2.8	3.1	3.7	3.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	.5						.5	.0	.0	.5	.6	.8
TOT OBS	175	758	490	55	1	1479		14.2	335	428	333	383
TOT PCT	11.8	51.3	33.1	3.7	.1		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1887-1969  
(OVER-ALL) 1854-1969

# OCTOBER

AREA 0019 SHARK BAY  
25.45 111.3E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOOR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	.0	1.5	31.6	50.7	15.5	.6	.0	14.2	100.0	335
05009	.5	1.9	32.2	51.4	13.6	.5	.0	14.0	100.0	428
12015	.6	1.5	32.7	49.8	15.0	.3	.0	13.9	100.0	333
18021	.8	1.6	29.5	53.0	14.6	.5	.0	14.7	100.0	383
TOT	.7	2.4	46.6	75.9	21.6	.7	.0	14.2		1479
PCT	.5	1.6	31.5	51.3	14.6	.5	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	1.3	.1	.2	.0		1.4
NE	.2	.0	.0	.2		4.0
E	1.0	.7	.5	.2		3.0
SE	10.8	5.1	6.6	2.0		3.1
S	20.8	10.6	11.2	1.9		3.1
SW	3.5	4.0	5.3	.9		4.1
W	1.9	3.0	3.1	.9		4.4
NW	1.5	.7	.9	.2		3.1
VAR	.0	.0	.0	.0		.0
CALM	.4	.2	.2	.2		3.8
TOT OBS	217	128	147	34	526	3.3
TOT PCT	41.3	24.3	27.9	6.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	
NE	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	
SE	.0	.0	.0	.2	2.1	2.2	2.1	.2	.0	.0	17.7	
S	.0	.0	.0	1.2	2.0	2.9	2.7	.4	.1	.0	35.0	
SW	.0	.0	.0	.6	1.0	1.1	1.5	.0	.0	.0	9.5	
W	.2	.0	.0	.5	.5	1.1	.6	.2	.0	.0	5.9	
NW	.0	.0	.0	.2	.4	.2	.0	.0	.0	.0	2.3	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.6	
TOT OBS	1	0	0	14	34	41	36	4	1	0	395	526
TOT PCT	.2	.0	.0	2.7	6.5	7.8	6.8	.8	.2	.0	75.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >6500	.2	.2	.2	.2	.2	.2	.2	.2
OR >5000	.9	.9	.9	.9	.9	.9	.9	.9
OR >3500	7.3	7.9	7.9	7.9	7.9	7.9	7.9	7.9
OR >2000	14.5	15.6	15.6	15.6	15.6	15.6	15.6	15.6
OR >1000	20.9	22.0	22.0	22.0	22.0	22.0	22.0	22.0
OR >600	23.0	24.5	24.7	24.7	24.7	24.7	24.7	24.7
OR >300	23.0	24.5	24.7	24.7	24.7	24.7	24.7	24.7
OR >150	23.0	24.5	24.7	24.7	24.7	24.7	24.7	24.7
OR >0	23.0	24.5	24.9	24.9	24.9	24.9	24.9	24.9
TOTAL	122	130	132	132	132	132	132	132

TOTAL NUMBER OF OBS: 531

PCT FREQ NH <5/8: 75.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	9	TOTAL OBS
19.8	14.3	14.0	14.3	12.5	7.0	5.8	7.7	4.6	.2	586

PERIOD: (PRIMARY) 1887-1969  
(OVER-ALL) 1855-1969

OCTUBER

AREA 0019 SHARK BAY  
25.45 111.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	
2<5	PCP	.0	.0	.0	.0	.0	*	.3	.0	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.7	.2	.0	.0	.0	.0	.8	
	TOT %	.0	.0	.0	.0	.7	.2	.3	.0	.0	.0	1.1	
5<10	PCP	.0	.0	.0	.2	.2	.3	.0	.0	.0	.0	.7	
	NO PCP	.1	.1	.7	2.9	3.2	2.7	.6	.3	.0	.0	10.6	
	TOT %	.1	.1	.7	3.1	3.4	3.0	.6	.3	.0	.0	11.3	
10+	PCP	.0	.0	.0	.2	.5	.2	.2	.0	.0	.0	1.0	
	NO PCP	1.4	.2	2.4	20.3	39.6	12.0	6.9	2.9	.0	.8	86.4	
	TOT %	1.4	.2	2.4	20.5	40.0	12.2	7.0	2.9	.0	.8	87.4	
TOT OBS													611
TOT PCT													1.5 .2 3.1 23.6 44.1 15.4 7.9 3.2 .0 .8 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPO KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	*	.1	.0	.0	.0	.0	.0	.1	.1
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.2	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.1	.4	.2	.0	.0	.0	.0	.7	.7
	22+	.0	.0	.0	.2	.5	.0	.0	.0	.0	.0	.6	.6
	TOT %	.0	.0	.0	.3	.9	.4	.0	.0	.0	.0	1.5	1.5
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.3	.1	.0	.0	.0	.0	.4	.4
	11-21	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.1	*	.1	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.0	.4	.2	.2	.0	.0	.0	.8	.8
5<10	0-3	.0	.0	.0	.1	.0	.1	.2	.0	.0	.0	.4	.4
	4-10	.2	.2	.9	1.9	3.5	3.4	.9	.1	.0	.0	11.0	11.0
	11-21	.1	.0	.1	3.1	6.7	2.8	1.7	.7	.0	.0	15.0	15.0
	22+	.0	.0	.1	1.3	2.2	.7	.0	.2	.0	.0	4.4	4.4
	TOT %	.2	.2	1.0	6.4	12.5	7.0	2.8	1.0	.0	.0	30.8	30.8
10+	0-3	.0	.0	.1	.4	.4	.2	.2	.0	.0	.5	1.8	1.8
	4-10	.5	.1	.5	2.9	8.1	4.3	2.6	1.1	.0	.0	20.1	20.1
	11-21	.4	.0	.7	9.7	16.2	5.2	1.8	1.0	.0	.0	34.8	34.8
	22+	.0	.1	.4	3.3	5.3	.5	.3	.0	.0	.0	9.9	9.9
	TOT %	.9	.2	1.7	16.4	29.9	10.2	4.9	2.1	.0	.5	66.7	66.7
TOT OBS													999
TOT PCT													1.1 .4 2.6 23.1 43.6 17.7 7.9 3.0 .0 .6 100.0

## OCTOBER

PERIOD: (PRIMARY) 1887-1969  
(OVER-ALL) 1855-1969

TABLE 10

AREA 0019 SHARK BAY  
75.45 111.3F

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <4/8 ANY HGT	TOTAL OBS
00003	.6	.0	.0	2.5	10.0	7.5	9.4	1.3	.0	.0	31.3	68.8	160
06009	.0	.0	.0	2.1	6.4	6.4	5.7	.7	.0	.0	21.3	78.7	141
12015	.0	.0	.0	.7	1.4	6.5	6.5	.0	.0	.0	15.2	84.8	138
18021	.0	.0	.0	4.6	5.3	8.4	3.8	.8	.0	.0	23.7	76.3	131
TOT	1	0	0	14	34	41	37	4	1	0	132	438	570
PCT	.2	.0	.0	2.5	6.0	7.2	6.5	.7	.2	.0	23.2	76.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	2.1	1.1	29.2	67.6	981
06009	.0	.0	.8	.4	28.3	70.5	237
12015	.4	.4	1.5	1.5	32.2	64.0	261
18021	.0	.0	1.3	.0	35.4	63.3	237
TOT	1	1	15	8	317	674	1016
PCT	.1	.1	1.5	.8	31.2	66.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00003	.7	.7	3.4	30.4	66.2	148
06009	.0	.0	2.2	20.0	77.8	135
12015	.0	.0	.8	15.6	83.6	128
18021	.0	.0	5.0	20.8	74.2	120
TOT	1	1	15	117	399	531
PCT	.2	.2	2.8	27.0	75.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
60/84	.0	.0	.0	.1	.0	.1	.0	.0	2	.2
75/79	.0	.0	.0	.2	.6	.9	.4	.1	18	2.2
70/74	.0	.0	.2	1.6	4.8	8.5	6.8	2.2	196	24.3
65/69	.0	.1	.2	3.6	11.6	19.9	15.8	5.1	456	56.4
60/64	.0	.0	.0	1.0	6.7	4.2	3.6	1.0	133	16.5
55/59	.0	.0	.0	.0	.1	.1	.1	.0	3	.4
TOTAL	0	1	4	53	193	273	216	68	808	100.0
PCT	.0	.1	.5	6.6	23.9	33.8	26.7	8.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
.2	.1	.2	.4	.7	.2	.3	.*	.0	.0
.8	.1	.8	5.4	11.0	3.3	1.5	.9	.0	.6
.3	.4	1.1	12.7	25.4	9.3	5.0	2.2	.0	.1
.0	.0	.1	3.7	6.7	5.1	.7	.*	.0	.0
.0	.0	.0	.2	.1	.*	.0	.0	.0	.0
1.3	.5	2.3	22.6	44.0	18.0	7.5	3.1	.0	.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	95%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	80	76	73	67	62	60	59	67.4	332
06009	80	79	75	69	64	62	59	69.2	413
12015	78	74	72	67	63	60	60	67.4	329
18021	79	73	71	65	61	60	59	65.0	370
TOT	80	76	73	67	63	60	59	67.6	1444

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	10.8	19.5	34.6	27.3	7.8	74	231		
06009	.0	15.3	27.9	37.9	14.7	4.2	71	190		
12015	.0	.9	25.5	33.0	31.6	9.0	77	212		
18021	.0	2.1	23.4	29.8	32.4	12.2	77	188		
TOT	0	60	196	278	219	68	75	821		



## OCTUBER

PERIOD: (PRIMARY) 1887-1969  
(OVER-ALL) 1855-1969

TABLE 17

AREA 0019 SHARK BAY  
25.45 111.3EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	TOT FOG	W FOG	WD FOG
11/13	.0	.0	.0	.0	.2	.0	1	.0	.2
9/10	.0	.0	.2	.2	.0	.0	2	.0	.4
7/8	.0	.0	.0	.4	.0	.2	3	.0	.6
6	.0	.0	.0	.0	.0	.2	1	.0	.2
5	.0	.0	.0	.2	.6	.4	6	.0	1.3
4	.0	.2	.0	.6	1.7	.0	12	.0	2.6
3	.0	.0	.2	1.1	1.9	.0	15	.0	3.2
2	.0	.2	.6	3.4	1.1	.0	25	.0	5.4
1	.0	.0	.6	4.1	1.9	.0	40	.0	8.6
0	.0	.2	4.3	7.3	1.3	.2	62	.0	13.3
-1	.0	.6	6.0	7.1	.4	.0	66	.0	14.2
-2	.0	1.3	11.0	4.5	.2	.0	79	.0	17.0
-3	.0	1.7	6.0	1.5	.2	.0	53	.0	11.4
-4	.0	2.2	6.5	.2	.0	.0	41	.0	8.8
-5	.0	2.4	4.7	.9	.0	.0	37	.0	8.0
-6	.0	.2	1.1	.2	.0	.0	7	.0	1.5
-7/-8	.6	1.5	.9	.2	.0	.0	15	.0	3.2
TOTAL	3	49	214	149	43	5	465	0	465
PCT	.6	10.5	46.0	32.0	9.7	1.1	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.4	.4	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.8	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.4	1.5	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4	.0	.4	.0	.0	.0	.0	.4
1-2	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.8	.0	.0	.0	2.5
3-4	.0	.4	.6	.0	.0	.0	1.0	.0	1.3	5.4	.0	.0	.0	6.7
5-6	.0	.0	.4	.4	.0	.0	.8	.0	.1	4.3	.5	.1	.0	4.9
7	.0	.0	.7	.0	.0	.0	.7	.0	.0	1.2	1.8	.0	.0	3.0
8-9	.0	.0	.0	.3	.0	.0	.3	.0	.0	.5	1.3	.0	.0	1.7
10-11	.0	.0	.0	.0	.4	.0	.4	.0	.0	.0	.6	.0	.0	.6
12	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.5	.1	.0	.6
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.8	1.6	.7	.7	.0	3.8	.0	3.5	12.1	5.0	.2	.0	20.8

PERIOD: (OVER-ALL) 1963-1969

OCTOBER

AREA 0019 SHARK BAY  
25.4S 111.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
1-2	.0	3.5	3.0	.0	.0	.0	6.6	.0	2.9	1.3	.0	.0	.0	4.2
3-4	.0	5.9	9.7	.4	.0	.0	16.0	.0	1.1	5.2	.0	.0	.0	6.3
5-6	.0	1.1	7.4	2.6	.3	.0	11.3	.0	.0	1.6	.4	.0	.0	2.0
7	.0	.0	5.1	4.3	.0	.0	9.4	.0	.4	.8	.1	.0	.0	1.3
8-9	.0	.0	.7	1.6	.0	.0	2.2	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.4	1.0	.0	.0	1.4	.0	.0	.0	.4	.0	.0	.4
12	.0	.0	.0	.3	.4	.0	.7	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.1	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	10.9	26.3	10.1	1.0	.0	48.3	.0	4.4	8.9	1.3	.1	.0	14.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	
1-2	.0	.3	.4	.0	.0	.0	.7	.0	.8	.0	.0	.0	.0	.8	
3-4	.0	1.6	.8	.0	.0	.0	2.4	.0	.6	.9	.0	.0	.0	1.5	
5-6	.0	.0	1.5	.0	.0	.0	1.5	.0	.0	.4	.0	.0	.0	.4	
7	.0	.0	.4	.8	.0	.0	1.2	.0	.0	.0	.4	.0	.0	.4	
8-9	.0	.0	.4	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	1.9	3.4	.8	.0	.0	6.1	.0	1.7	1.3	.4	.0	.0	3.4	98.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.2	1.9	.0	.0	.0	.0	3.1	
1-2	.0	9.7	5.8	.0	.0	.0	15.4	
3-4	.0	10.8	22.8	.4	.0	.0	34.0	
5-6	.0	1.2	16.2	3.9	.4	.0	21.6	
7	.0	.4	8.1	7.3	.0	.0	15.8	
8-9	.0	.0	1.5	3.1	.0	.0	4.6	
10-11	.0	.0	.4	1.9	.4	.0	2.7	
12	.0	.0	.0	.8	.8	.0	1.5	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.4	.4	.0	.8	
20-22	.0	.0	.0	.4	.0	.0	.4	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.2	23.9	54.8	18.1	1.9	.0	100.0	259

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.0	5.6	10.9	3.1	1.9	1.5	.7	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	99
6-7	.0	1.2	4.8	7.0	8.7	3.1	1.7	.7	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	114
8-9	.0	.0	2.7	7.3	5.8	4.1	1.4	1.2	1.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	100
10-11	.0	.0	.2	2.2	2.9	2.9	2.4	1.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	51
12-13	.0	.0	.2	.5	.2	1.9	.5	.5	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19
>13	.0	.0	.0	.2	.7	.2	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8
INDFT	.2	.0	1.2	1.5	1.5	.7	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22
TOTAL	1	28	83	90	90	60	32	15	11	2	1	0	0	0	0	0	0	0	0	0	413
PCT	.2	6.8	20.1	21.8	21.8	14.5	7.7	3.6	2.7	.5	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

## NOVEMBER

PERIOD: (PRIMARY) 1916-1972  
(OVER-ALL) 1859-1972AREA 0019 SHARK BAY  
75.55 111.4E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	9.1	.0	.0	.0	.0	.0	.0	9.1	.0	.0	.0	.0	.0	.0	90.9
NE	15.8	.0	.0	.0	.0	.0	.0	15.8	.0	.0	.0	.0	.0	.0	84.2
E	28.0	.0	16.0	.0	.0	.0	.0	44.0	.0	.0	.0	.0	.0	.0	56.0
SE	1.0	.0	.0	.0	.0	.0	.0	1.0	.0	1.0	.0	.0	.0	.0	97.9
S	.0	.5	.3	.0	.0	.0	.0	.8	.9	.9	.0	.0	3.3	.0	94.1
SW	1.6	2.7	.0	.0	.0	.0	.0	4.3	1.3	1.6	.0	.0	3.8	.0	90.6
W	1.7	.0	3.4	.0	.0	.0	.0	5.0	.0	1.7	.0	.0	.0	.0	95.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.1	.7	.5	.0	.0	.0	.0	2.3	.7	1.1	.0	.0	2.5	.0	93.8
TOT OBS:	564														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	2.0	1.4	1.4	.0	.0	.0	.0	4.8	.7	.7	.0	.0	2.0	.0	92.5
0600	.7	.0	.0	.0	.0	.0	.0	.7	.7	.7	.0	.0	2.7	.0	95.9
1200	.0	.0	.7	.0	.0	.0	.0	.7	.7	1.4	.0	.0	3.6	.0	93.5
1800	1.5	1.5	.0	.0	.0	.0	.0	3.0	.8	1.5	.0	.0	1.5	.0	93.2
TOT PCT	1.1	.7	.5	.0	.0	.0	.0	2.3	.7	1.1	.0	.0	2.5	.0	93.8
TOT OBS:	565														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.0	.6	.2	.0	.0	.0		.9	9.6		1.3	.0	.9	.5	1.2	1.4	.3	.9
NE	.1	.5	.1	.0	.0	.0		.8	8.7		1.9	2.2	.0	1.0	.4	.0	.9	.0
E	.0	.9	.4	.1	.0	.0		1.4	11.1		3.3	7.8	1.1	.5	.2	.0	1.0	.5
SE	.0	3.8	10.6	4.8	.2	.0		19.5	16.8		23.5	22.2	24.2	14.5	12.3	6.1	18.7	25.0
S	.4	12.0	30.2	10.7	.5	.0		53.8	16.0		51.8	45.6	51.3	56.0	58.0	76.4	51.9	51.9
SW	.3	7.5	7.2	1.2	.0	.0		16.2	12.1		12.6	21.1	13.5	19.5	18.0	10.8	19.5	16.5
W	.2	2.4	1.6	.3	.0	.0		4.4	11.5		3.1	1.1	4.7	4.0	6.3	4.1	6.3	.9
NW	.4	1.7	.6	.1	.0	.0		2.9	9.0		2.0	.0	3.8	4.0	3.6	1.4	1.4	4.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.2							.2	.0		.4	.0	.4	.0	.0	.0	.0	.0
TOT OBS	18	363	629	213	9	0	1232		14.9		233	45	266	100	248	37	197	106
TOT PCT	1.5	29.5	51.1	17.3	.7	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+						00	03	06	12	18
N	.3	.5	.1	.0	.0		.9	9.6			1.1	.8	1.2	.5	
NE	.4	.3	.1	.0	.0		.8	8.7			2.0	.3	.4	.0	
E	.2	1.1	.2	.0	.0		1.4	11.1			4.0	1.0	.2	.8	
SE	.7	6.5	8.9	1.3	.0		19.5	16.8			23.3	21.6	11.5	20.9	
S	2.5	25.8	22.5	3.0	.1		53.8	16.0			50.8	52.6	60.4	51.9	
SW	2.2	10.9	2.7	.4	.0		16.2	12.1			13.9	15.2	17.1	18.5	
W	.9	2.6	1.0	.1	.0		4.4	11.5			2.8	4.5	6.0	4.5	
NW	1.0	1.6	.3	.0	.0		2.9	9.0			1.7	3.8	3.3	2.4	
VAR	.0	.0	.0	.0	.0		.0	.0			.0	.0	.0	.0	
CALM	.2						.2	.0			.4	.3	.0	.0	
TOT OBS	102	630	441	58	1	1232		14.9			278	366	285	303	
TOT PCT	8.3	51.1	35.8	4.7	.1		100.0				100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1916-1972  
(OVER-ALL) 1855-1972

# NOVEMBER

AREA 0019 SHARK BAY  
25.55 111.4E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)					48+	MEAN	PCT FREQ	TOTAL OBS
		0-2	3-4	5-7	8-10	11-21				
0000	.4	1.8	32.0	47.5	17.6	.7	.0	14.6	100.0	278
0400	.3	.5	30.9	52.2	15.3	.8	.0	14.8	100.0	366
1200	.0	.7	24.2	53.7	21.1	.4	.0	15.8	100.0	285
1800	.0	2.3	30.4	50.5	15.8	1.0	.0	14.5	100.0	303
TOT	2	16	363	629	213	9	0	14.9		1232
PCT	.2	1.3	29.5	51.1	17.3	.7	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL OBS	MEAN CLOUD COVER
N	.3	.2	.0	.0		1.6
NE	.0	.2	.0	.0		3.0
E	.4	.2	.4	.4		5.1
SE	5.4	4.6	6.6	1.3		3.9
S	20.9	15.6	17.5	3.8		3.6
SW	4.7	4.9	3.3	2.7		4.0
W	2.5	1.1	1.1	.4		3.4
NW	.5	.4	.5	.0		3.5
VAR	.0	.0	.0	.0		.0
CALM	.2	.0	.0	.0		1.0
TOT OBS	167	130	141	41	479	3.7
TOT PCT	34.9	27.1	29.4	8.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL OBS	MEAN CLOUD COVER	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL
N	.3	.2	.0	.0		1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5
NE	.0	.2	.0	.0		3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
E	.4	.2	.4	.4		5.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5
SE	5.4	4.6	6.6	1.3		3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.2
S	20.9	15.6	17.5	3.8		3.6	.0	.0	.0	1.0	6.6	7.2	2.5	.7	.0	.0	.2	39.6
SW	4.7	4.9	3.3	2.7		4.0	.0	.0	.2	.7	1.4	1.6	.9	.0	.0	.0	.1	10.6
W	2.5	1.1	1.1	.4		3.4	.0	.0	.0	.0	.9	.4	.0	.0	.0	.0	.0	3.8
NW	.5	.4	.5	.0		3.5	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	1.4
VAR	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.2	.0	.0	.0		1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
TOT OBS	167	130	141	41	479	3.7	.0	.0	1	11	53	54	21	7	0	1	331	479
TOT PCT	34.9	27.1	29.4	8.6	100.0		.0	.0	.2	2.3	11.1	11.3	4.4	1.5	.0	.2	69.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >6500	.2	.2	.2	.2	.2	.2	.2	.2
OR >4000	1.7	1.9	1.9	1.9	1.9	1.9	1.9	1.9
OR >3500	6.0	6.2	6.2	6.2	6.2	6.2	6.2	6.2
OR >2000	16.1	17.6	17.8	17.8	17.8	17.8	17.8	17.8
OR >1000	25.0	28.5	28.7	28.7	28.7	28.7	28.7	28.7
OR >400	26.4	30.6	31.0	31.0	31.0	31.0	31.0	31.0
OR >300	26.7	30.8	31.2	31.2	31.2	31.2	31.2	31.2
OR >150	26.7	30.8	31.2	31.2	31.2	31.2	31.2	31.2
OR >0	26.7	30.8	31.2	31.2	31.2	31.2	31.2	31.2
TOTAL	129	149	151	151	151	151	151	151

TOTAL NUMBER OF OBS: 484

PCT FREQ NH <5/8: 68.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
14.3	13.2	15.3	16.5	8.5	7.9	7.8	8.7	7.8	.0	516

PERIOD: (PRIMARY) 1914-1972  
(OVEN-ALL) 1855-1972

NOVEMBER

AREA 0019 SHARK BAY  
25.95 111.4E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.4	.4
	TOT %	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.4	.4
2<5	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.0	.0	.1	.3	.1	.0	.0	.0	.5	.5
	TOT %	.0	.0	.0	.0	.3	.3	.1	.0	.0	.0	.7	.7
5<10	PCP	.1	.1	.4	.2	.1	.5	.1	.0	.0	.0	1.4	1.4
	NO PCP	.0	.0	.1	3.0	10.1	2.7	.3	.2	.0	.0	16.3	16.3
	TOT %	.1	.1	.5	3.2	10.2	3.2	.4	.2	.0	.0	17.7	17.7
10+	PCP	.0	*	.1	.0	.2	.2	.2	.0	.0	.0	.7	.7
	NO PCP	.9	.7	.5	13.7	45.7	12.8	4.6	1.3	.0	.2	80.5	80.5
	TOT %	.9	.8	.6	13.7	45.9	13.0	4.8	1.3	.0	.2	81.2	81.2
TOT OBS													564
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.4	.4
	11-21	.0	.0	.0	.1	.3	.1	.0	.0	.0	.0	.4	.4
	22+	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.1	.7	.3	.0	.0	.0	.0	1.0	1.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.1
	4-10	.0	.0	.1	.2	.3	.0	.0	.0	.0	.0	.5	.5
	11-21	.0	.0	.0	.2	1.9	.1	.0	.1	.0	.0	2.3	2.3
	22+	.0	.0	.0	.0	.3	.2	.0	.0	.0	.0	.5	.5
	TOT %	.0	.0	.1	.4	2.5	.3	.0	.1	.0	.1	3.4	3.4
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.2	*	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.2	.2	.1	.0	.0	.0	.4	.4
5<10	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.2	.1	.4	.6	4.9	2.5	.5	.5	.0	.0	9.6	9.6
	11-21	.2	.1	.3	3.5	9.0	2.5	.5	.2	.0	.0	16.3	16.3
	22+	.0	.0	.0	1.9	4.8	.4	.2	.0	.0	.0	7.3	7.3
	TOT %	.4	.1	.7	6.1	18.6	5.4	1.2	.7	.0	.0	33.2	33.2
10+	0-3	.0	.1	.0	.0	.2	.3	.2	.2	.0	.1	1.1	1.1
	4-10	.5	.4	.5	2.0	6.1	4.7	1.8	.7	.0	.0	16.7	16.7
	11-21	.1	*	.1	6.7	20.7	4.7	1.2	.3	.0	.0	33.8	33.8
	22+	.0	.0	.0	2.4	7.3	.5	.1	.0	.0	.0	10.3	10.3
	TOT %	.6	.5	.6	11.1	34.3	10.3	3.3	1.2	.0	.1	61.9	61.9
TOT OBS													964
TOT PCT													100.0



NOVEMBER

PERIOD: (PRIMARY) 1916-1972  
(OVER-ALL) 1855-1972

AREA 0019 SHARK BAY  
25.55 111.4E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.8	3.8	15.3	15.3	3.8	2.3	.0	.8	42.0	58.0	131
06009	.0	.0	.0	.7	6.4	10.6	3.5	.7	.0	.0	22.0	78.0	141
12015	.0	.0	.0	.8	5.7	9.0	3.3	.8	.0	.0	19.7	80.3	122
18021	.0	.0	.0	3.7	15.9	9.3	6.5	2.8	.0	.0	38.3	61.7	107
TOT	0	0	1	11	53	56	21	8	0	1	151	350	501
PCT	.0	.0	.2	2.2	10.6	11.2	4.2	1.6	.0	.2	30.1	69.9	100.0

TABLE 11

PERCENT FREQUENCY VSRY (NN) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	1.6	5.7	.8	26.5	65.3	245
06009	.0	.4	4.1	.0	29.3	66.1	242
12015	.0	1.2	2.0	.4	38.7	57.7	253
18021	.0	.9	1.7	.4	38.1	58.9	231
TOT	0	10	33	4	322	602	971
PCT	.0	1.0	3.4	.4	33.2	62.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.8	5.4	36.9	57.7	130
06009	.0	.0	.7	22.1	77.2	136
12015	.0	.0	.9	20.0	79.1	115
18021	.0	.0	4.9	35.9	59.2	103
TOT	0	1	14	138	332	484
PCT	.0	.2	2.9	28.5	68.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.0	.0	.3	.0	.1	.1	.1	5	.6
75/79	.0	.0	.0	.4	.6	3.3	1.3	.0	53	6.7
70/74	.0	.0	.1	1.5	6.3	11.4	12.8	5.7	299	37.9
65/69	.0	.0	.0	2.0	11.9	18.0	13.1	2.9	378	48.0
60/64	.0	.0	.0	.1	2.3	2.7	1.3	.3	52	6.6
55/59	.0	.0	.0	.0	.0	.0	.1	.0	1	.1
TOTAL	0	0	1	36	167	280	226	78	788	100.0
PCT	.0	.0	.1	4.6	21.2	35.5	28.7	9.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.1	.2	.1	.1	.1	.0	.1	.0	.0
.1	.2	.1	1.0	3.6	1.0	.3	.5	.0	.0
.4	.1	.6	5.1	23.4	6.6	1.2	.5	.0	.1
.3	.1	.3	9.7	26.4	8.0	2.5	.5	.0	.1
.1	.1	.0	1.7	3.0	1.1	.6	.0	.0	.0
.0	.0	.0	.0	.0	.1	.0	.0	.0	.0
.8	.6	1.3	17.5	56.4	16.9	4.6	1.7	.0	.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	84	83	77	69	64	62	58	69.6	276
06009	86	81	77	71	64	64	62	71.0	353
12015	78	77	75	69	64	62	61	69.2	286
18021	77	73	72	67	61	61	60	67.5	303
TOT	86	79	76	69	64	62	58	69.4	1218

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	7.5	20.4	34.8	27.4	10.0	7.5	20.1		
06009	.0	8.3	31.3	34.9	20.3	5.2	7.3	19.2		
12015	.0	1.0	17.5	34.0	35.0	12.5	7.9	20.6		
18021	.0	2.1	15.5	38.9	32.1	11.4	7.8	19.3		
TOT	0	37	167	282	228	78	76	792		

NOVEMBER

PERIOD: (PRIMARY) 1916-1972  
(OVER-ALL) 1855-1972AREA 0019 SHARK BAY  
25.55 111.4E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.4	2	.0	.4
9/10	.0	.0	.0	.0	.0	.4	2	.0	.4
7/8	.0	.0	.0	.4	.2	.0	5	.0	1.1
5	.0	.0	.2	.9	1.3	.0	11	.0	2.4
4	.0	.0	1.5	1.1	.2	.0	13	.0	2.8
3	.0	.2	1.1	1.5	.2	.0	14	.0	3.1
2	.0	.9	2.6	1.5	.7	.0	26	.0	5.7
1	.0	2.2	6.1	3.7	.4	.0	57	.0	12.4
0	1.3	4.4	9.6	1.3	.0	.0	76	.0	16.6
-1	.7	4.6	5.7	.9	.0	.0	54	.0	11.8
-2	.4	8.3	7.6	.2	.0	.0	77	.0	16.8
-3	.7	5.7	3.3	.0	.4	.0	46	.0	10.0
-4	.4	3.9	1.7	.0	.0	.0	28	.0	6.1
-5	1.1	3.1	.7	.0	.0	.0	22	.0	4.8
-6	1.1	1.5	.2	.0	.0	.0	13	.0	2.8
-7/-8	.9	1.5	.4	.0	.0	.0	13	.0	2.8
TOTAL	30	166	188	53	5	5	459	0	459
PCT	6.5	36.2	41.0	11.5	3.7	1.1	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.4	.0	.0	.0	.4	.0	.0	.1	.0	.0	.0	.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.4	.0	.0	.0	.4	.0	.4	.1	.0	.0	.0	.5

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.8	.0	.0	.0	.0	.8	.0	1.1	.5	.0	.0	.0	1.6
3-4	.0	.0	.6	.0	.0	.0	.6	.0	.0	1.9	.0	.0	.0	1.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.4	3.3	.7	.0	.0	4.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	1.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	.6	.0	.0	1.8
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.8	.6	.0	.0	.0	1.5	.0	1.5	8.5	2.0	.0	.0	12.0

PERIOD: (OVER-ALL) 1963-1972

NOVEMBER

AREA 0019 SHARK BAY  
25.55 111.4E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	1.2	.0	.0	.0	.0	1.2	.4	1.0	.0	.0	.0	.0	.0	1.4
1-2	.0	4.2	3.9	.0	.0	.0	8.2	.4	4.3	2.3	.0	.0	.0	.0	7.1
3-4	.0	3.7	13.0	.8	.0	.0	17.6	.0	3.6	3.9	.0	.0	.0	.0	7.5
5-6	.0	1.9	12.3	1.8	.0	.0	16.0	.0	.6	1.9	.1	.0	.0	.0	2.6
7	.0	.0	3.4	1.7	.0	.0	5.1	.0	.0	1.4	.0	.0	.0	.0	1.4
8-9	.0	.0	3.5	2.1	.0	.0	5.6	.0	.0	.0	.6	.0	.0	.0	.6
10-11	.0	.0	.8	.3	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	11.0	37.0	7.5	.0	.0	55.5	.8	9.5	9.5	.7	.0	.0	20.7	

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.0	.3	.0	.0	.0	.0	.3	.0	.1	.0	.0	.0	.0	.0	.1	
1-2	.0	2.6	.0	.0	.0	.0	2.6	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	2.3	1.2	.0	.0	.0	3.5	.0	1.0	.0	.0	.0	.0	.0	1.0	
5-6	.0	.0	1.2	.3	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	5.3	2.3	.3	.0	.0	7.9	.0	1.1	.0	.0	.0	.0	1.1	99.6	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.3	3.0	.0	.0	.0	.0	4.2	
1-2	.4	13.1	6.8	.0	.0	.0	20.3	
3-4	.0	10.5	21.1	.8	.0	.0	32.5	
5-6	.0	3.0	18.6	3.0	.0	.0	24.5	
7	.0	.0	6.3	1.7	.0	.0	8.0	
8-9	.0	.0	4.6	3.4	.0	.0	8.0	
10-11	.0	.0	.8	.4	.0	.0	1.3	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.8	.0	.0	.8	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.4	.0	.0	.4	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.7	29.5	58.2	10.5	.0	.0	100.0	237

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.6	4.2	4.5	3.9	1.6	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	65
6-7	.0	.8	4.7	9.9	7.6	4.7	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	110
8-9	.0	.0	1.0	7.6	6.8	10.5	4.7	.8	1.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	125
10-11	.0	.0	.3	1.0	3.7	3.1	.8	1.8	.5	.3	.3	.0	.3	.0	.0	.0	.0	.0	.0	.0	46
12-13	.0	.0	.3	.8	.0	1.0	.3	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11
>13	.0	.0	.0	.0	.3	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
INDFT	.3	.5	.8	1.3	1.3	.0	.3	.3	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20
TOTAL	11	21	44	94	81	75	28	13	11	1	2	0	1	0	0	0	0	0	0	0	382
PCT	2.9	5.5	11.5	24.6	21.2	19.6	7.3	3.4	2.9	.3	.5	.0	.3	.0	.0	.0	.0	.0	.0	.0	100.0

DECEMBER

PERIOD: (PRIMARY) 1924-1972  
(OVER-ALL) 1855-1972AREA 0019 SHARK BAY  
25.55 111.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23.5	.0	76.5
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.3	.0	86.7
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.7	.0	2.3	1.4	94.8
S	.0	.0	.0	.0	.0	.0	.0	.0	.2	.6	.0	.0	1.9	.4	96.9
SW	.0	2.6	.0	.0	.0	.0	.0	2.6	.9	.4	.0	.0	5.2	1.1	88.9
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.0	.0	.0	6.0	.0	88.1
NW	.0	21.1	.0	.0	.0	.0	.0	21.1	.0	.0	.0	.0	.0	.0	78.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.0	.6	.0	.0	.0	.0	.0	.6	.3	.7	.1	.0	3.0	.7	94.6
TOT OBS:	702														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	.0	.6	.0	.0	.0	.0	.0	.6	.6	.0	.0	.0	3.9	.6	94.4
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.7	1.2	93.6
12015	.0	.6	.0	.0	.0	.0	.0	.6	.6	.0	.0	.0	2.8	1.1	95.0
18021	.0	1.1	.0	.0	.0	.0	.0	1.1	.0	2.3	.6	.0	.6	.0	95.4
TOT PCT	.0	.6	.0	.0	.0	.0	.0	.6	.3	.7	.1	.0	3.0	.7	94.6
TOT OBS:	704														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.0	.2	.0	.0	.0	.0		.2	8.6		.4	.0	.2	.0	.4	.0	.0	.0
NE	.1	.4	.0	.0	.0	.0		.5	6.3		.5	.0	.8	.0	1.0	.0	.1	.0
E	.1	.6	.2	.0	.1	.0		1.0	10.7		1.0	6.5	.6	.0	1.0	.0	1.2	.0
SE	.0	3.7	9.8	7.8	.1	.1		21.5	18.3		22.7	22.2	24.8	14.3	15.3	3.3	24.7	26.7
S	.5	10.1	35.1	11.7	1.1	.0		58.5	16.8		60.1	54.6	58.1	59.5	60.0	65.0	58.9	55.6
SW	.0	5.6	8.0	1.0	.0	.0		14.5	13.1		11.7	13.0	13.0	19.0	20.4	31.7	12.4	8.9
W	.0	1.3	.7	.0	.0	.0		2.0	9.8		2.2	.0	2.7	2.4	1.0	.0	2.5	4.4
NW	.0	1.4	.0	.0	.0	.0		1.4	6.6		1.1	3.7	1.3	4.8	1.1	.0	.7	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	.2							.2	.0		.5	.0	.4	.0	.0	.0	.0	.0
TOT OBS	9	227	523	199	12	1	971		16.2		208	27	240	42	208	15	185	45
TOT PCT	.9	23.4	53.9	20.5	1.2	.1		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	.0	.2	.0	.0	.0			.2	8.6		.3	.2	.3	.0
NE	.3	.2	.0	.0	.0			.5	6.3		.4	.7	.9	.1
E	.3	.4	.2	.1	.0			1.0	10.7		1.6	.5	.9	1.0
SE	1.0	7.1	11.0	2.2	.1			21.5	18.3		22.7	23.2	14.5	25.1
S	2.6	25.5	26.6	3.7	.2			58.5	16.8		59.5	56.6	60.3	58.2
SW	1.1	9.6	3.8	.1	.0			14.5	13.1		11.8	13.9	21.2	11.7
W	.4	1.6	.1	.0	.0			2.0	9.8		1.9	2.7	.9	2.5
NW	.8	.6	.0	.0	.0			1.4	6.6		1.4	1.8	1.0	1.4
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	.2							.2	.0		.4	.4	.0	.0
TOT OBS	65	439	405	59	3	971			16.2		235	282	223	231
TOT PCT	6.7	45.2	41.7	6.1	.3			100.0			100.0	100.0	100.0	100.0

DECEMBER

PERIOD: (PRIMARY) 1924-1972  
(OVER-ALL) 1855-1972

AREA 0019 SHARK BAY  
25.55 111.3E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
00003	.4	1.3	25.5	51.1	20.4	1.3	.0	16.1	100.0	235
04009	.4	.4	19.9	57.4	19.9	1.8	.4	16.3	100.0	282
12015	.0	1.3	23.8	54.7	18.4	1.8	.0	15.9	100.0	223
18021	.0	.0	25.1	51.5	23.4	.0	.0	16.2	100.0	231
TOT	.2	.7	22.7	52.3	19.9	1.2	.1	16.2		971
PCT	.2	.7	23.4	53.9	20.5	1.2	.1	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.1	.0		6.0
NE	.4	.0	.0	.0		.8
E	.3	.2	.0	.3		4.6
SE	9.1	5.4	4.9	.7		3.0
S	26.6	12.8	18.0	2.3		3.2
SW	6.5	4.1	4.5	.0		3.3
W	1.3	.7	.0	.2		2.2
NW	.2	.0	.0	.0		1.0
VAR	.0	.0	.0	.0		.0
CALM	.2	.2	.0	.0		2.5
TOT OBS	265	139	164	26	594	3.1
TOT PCT	44.6	23.4	27.6	4.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	
.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.6	
.0	.0	.2	.0	1.3	1.5	1.2	.4	.0	.0	15.6	
.0	.1	.0	.8	3.4	6.0	2.9	1.1	.2	.3	45.0	
.0	.0	.0	.0	1.2	1.4	.5	.0	.0	.0	12.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.1	1	9	35	54	27	9	1	2	455	594
.0	.2	.2	1.5	5.9	9.1	4.5	1.5	.2	.3	76.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.5	.5	.5	.5	.5	.5	.5	.5
>5000	2.0	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>3500	6.5	6.7	6.7	6.7	6.7	6.7	6.7	6.7
>2000	14.4	15.7	15.7	15.7	15.7	15.7	15.7	15.7
>1000	18.3	21.3	21.6	21.6	21.6	21.6	21.6	21.6
>800	19.4	22.6	23.1	23.1	23.1	23.1	23.1	23.1
>300	19.6	22.8	23.3	23.3	23.3	23.3	23.3	23.3
>150	19.6	22.9	23.5	23.5	23.5	23.5	23.5	23.5
>0	19.6	22.9	23.5	23.5	23.5	23.5	23.5	23.5
TOTAL	117	137	140	140	140	140	140	140

TOTAL NUMBER OF OBS: 597

PCT FREQ NH <5/8: 76.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
21.0	16.1	14.4	14.2	9.3	7.8	8.7	4.9	3.5	.0	632



PERIOD: (PRIMARY) 1924-1972  
(OVER-ALL) 1855-1972

DECEMBER

AREA 0019 SHARK BAY  
25.55 111.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	.3
	TOT %	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.3	.3
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.4	.4	.0	.0	.0	.0	.9	.9
	TOT %	.0	.0	.0	.0	.4	.4	.0	.0	.0	.0	.9	.9
5<10	PCP	.0	.0	.0	.0	.0	.1	.0	.1	.0	.0	.3	.3
	NO PCP	.1	.1	.0	4.4	10.6	3.8	.6	*	.0	.0	19.7	19.7
	TOT %	.1	.1	.0	4.4	10.6	3.9	.6	.2	.0	.0	19.9	19.9
10+	PCP	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	.3
	NO PCP	.1	.5	1.1	15.8	46.7	12.0	1.7	.5	.0	.3	78.6	78.6
	TOT %	.1	.5	1.1	15.8	46.7	12.3	1.7	.5	.0	.3	78.9	78.9
TOT OBS													
TOT PCT													
		.2	.6	1.1	20.4	57.7	16.7	2.4	.7	.0	.3	100.0	702

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.2	.0	.1	.0	.0	.0	.0	.4	.4
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.5	.5
	TOT %	.0	.0	.0	.2	.6	.1	.0	.0	.0	.0	1.0	1.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	.4
	22+	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.0	.4	.4	.0	.0	.0	.0	.7	.7
5<10	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	.1	.0	.4	1.0	1.5	.3	.2	.0	.0	3.6	3.6
	11-21	.0	.0	.0	2.3	7.3	1.7	.2	.0	.0	.0	11.6	11.6
	22+	.0	.0	.0	1.3	2.0	.2	.0	.0	.0	.0	3.5	3.5
	TOT %	.1	.1	.0	3.9	10.4	3.4	.6	.2	.0	.0	18.6	18.6
10+	0-3	.0	.1	.0	.0	.6	*	.0	.0	.0	.2	1.0	1.0
	4-10	.1	.2	.7	3.1	8.8	4.8	1.0	.4	.0	.0	19.1	19.1
	11-21	.0	*	.2	7.1	29.3	6.8	.5	.0	.0	.0	44.0	44.0
	22+	.0	.0	.0	6.2	9.0	.4	.0	.0	.0	.0	15.6	15.6
	TOT %	.1	.4	.9	16.3	47.7	12.0	1.9	.4	.0	.2	79.6	79.6
TOT OBS													
TOT PCT													
		.2	.5	.9	20.5	59.0	15.9	2.1	.6	.0	.2	100.0	810

PERIOD: (PRIMARY) 1924-1972  
(OVER-ALL) 1855-1972

DECEMBER

AREA 0019 SHARK BAY  
25.5S 111.3E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.6	.0	.6	9.3	13.6	5.6	1.9	.6	.0	32.1	67.9	162
06009	.0	.0	.0	.6	1.8	4.3	4.3	2.4	.0	.6	14.0	86.0	164
12015	.0	.0	.0	4.1	7.4	4.7	4.7	1.4	.0	.0	22.3	77.7	148
18021	.0	.0	.7	.7	4.3	12.8	2.8	.7	.0	.7	22.7	77.3	141
TOT	0	1	1	9	35	54	27	10	1	2	140	475	615
PCT	.0	.2	.2	1.5	5.7	8.8	4.4	1.6	.2	.3	22.8	77.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	1.5	1.0	12.6	85.0	206
06009	.0	.0	.5	.5	20.5	78.6	210
12015	.0	.0	1.5	1.0	16.6	80.9	199
18021	.0	.0	.5	.5	25.3	73.7	198
TOT	0	0	8	6	152	847	813
PCT	.0	.0	1.0	.7	18.7	79.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.6	2.5	31.6	65.8	158
06009	.0	.0	1.3	13.1	85.6	160
12015	.0	.0	4.9	18.2	76.9	143
18021	.0	.7	2.2	22.1	75.7	136
TOT	0	2	16	127	454	597
PCT	.0	.3	2.7	21.3	76.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.2	.0	.0	.0	.0	1	.2
80/84	.0	.0	.0	.0	.8	1.2	.7	.2	17	2.9
75/79	.0	.0	.2	1.0	1.4	6.4	3.4	2.2	86	14.5
70/74	.0	.0	.2	1.2	11.8	14.7	18.1	6.6	311	52.5
65/69	.0	.0	.0	.5	6.3	11.3	9.5	1.7	173	29.2
60/64	.0	.0	.0	.0	.3	.0	.0	.3	4	.7
TOTAL	0	0	2	17	122	199	187	65	592	100.0
PCT	.0	.0	.3	2.9	20.6	33.6	31.6	11.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.2	.0	.0	.0	.0	.0	.0	.0
.0	.0	.3	.5	1.1	.7	.2	.0	.0	.0
.0	.5	.5	1.9	6.8	3.8	.8	.0	.0	.2
.1	.2	.3	10.1	32.9	7.5	1.1	.2	.0	.0
.0	.0	.0	8.3	16.0	4.3	.5	.0	.0	.0
.0	.0	.0	.5	.2	.0	.0	.0	.0	.0
.1	.7	1.3	21.4	57.1	16.4	2.6	.3	.0	.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	84	83	79	72	66	65	64	71.8	230
06009	86	82	80	73	68	66	64	73.7	248
12015	87	81	77	71	67	65	65	71.5	219
18021	84	77	75	70	66	64	63	69.9	276
TOT	87	82	78	72	67	65	63	71.8	943

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	3.2	23.9	29.7	30.3	12.9	77	155		
06009	.0	7.6	31.0	33.1	22.8	5.5	74	145		
12015	.0	.7	14.6	35.1	35.8	13.9	79	151		
18021	.0	1.4	13.9	36.1	37.5	11.1	78	144		
TOT	0	19	124	199	188	65	77	595		

## DECEMBER

PERIOD: (PRIMARY) 1924-1972  
(OVER-ALL) 1855-1972

TABLE 17

AREA 0019 SHARK BAY  
25.55 111.3EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	66 68	69 72	73 76	77 80	81 84	85 88	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.0	.4	.2	.2	4	.0	.7
9/10	.0	.0	.0	.0	.2	.2	.2	3	.0	.5
7/8	.0	.0	.2	.0	.7	.5	.0	8	.0	1.4
6	.0	.0	.0	.5	.5	.2	.0	7	.0	1.3
5	.0	.2	.7	1.4	1.6	.7	.0	26	.0	4.7
4	.0	.0	.5	2.0	1.1	.2	.0	21	.0	3.8
3	.0	.0	.7	3.1	2.3	.0	.0	34	.0	6.1
2	.0	.0	2.3	3.4	.9	.0	.0	37	.0	6.7
1	.0	.4	4.0	4.7	.5	.0	.0	53	.0	9.5
0	.0	1.6	6.3	4.9	.5	.2	.0	75	.2	13.3
-1	.0	1.1	8.3	5.8	.0	.0	.0	84	.0	15.1
-2	.0	3.4	9.9	2.7	.0	.0	.0	89	.0	16.0
-3	.0	2.7	4.5	.4	.0	.0	.0	42	.0	7.6
-4	.2	4.0	3.8	.4	.0	.0	.0	46	.0	8.3
-5	.2	1.1	1.1	.2	.0	.0	.0	14	.0	2.5
-6	.0	.7	.7	.2	.0	.0	.0	9	.0	1.6
-7/-8	.2	.0	.2	.2	.0	.0	.0	3	.0	.5
TOTAL	3	84	242	165	47	12	2	555	1	554
PCT	.5	15.1	43.2	29.7	8.9	2.2	.4	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

WGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.3	.0	.1	.0	.0	.0	.4

WGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.7	.0	.0	.0	.0	.7	.0	1.0	.0	.0	.0	.0	1.0
1-2	.0	.6	.0	.0	.0	.0	.6	.0	1.1	.1	.0	.0	.0	1.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	.0	.0	.0	3.6
5-6	.0	.0	.6	.0	.0	.0	.6	.0	.0	3.6	1.3	.0	.0	4.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.9	.0	.0	1.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	1.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.1	.0	.7
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.2	.6	.0	.0	.0	1.8	.0	2.1	6.0	5.7	.1	.0	15.8

PERIOD: (OVER-ALL) 1963-1977

DECEMBER

AREA 0019 SHARK BAY  
25.55 111.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	1.0	.0	.0	.0	.0	1.0	.0	1.0	.0	.0	.0	.0	.0	1.6
1-2	.0	5.1	3.0	.0	.0	.0	8.1	.0	3.9	2.2	.0	.0	.0	.0	6.1
3-4	.0	2.9	13.9	.0	.0	.0	16.8	.0	3.4	4.6	.3	.0	.0	.0	8.5
5-6	.0	1.0	10.8	3.2	.0	.0	15.0	.0	.0	3.3	.4	.0	.0	.0	3.7
7	.0	.0	6.7	1.1	.0	.0	7.8	.0	.0	.2	.0	.0	.0	.0	.2
8-9	.0	.0	1.9	2.8	.0	.0	4.7	.0	.0	.7	.0	.0	.0	.0	.7
10-11	.0	.0	.0	1.1	.7	.0	1.7	.0	.0	.0	.1	.0	.0	.0	.1
12	.0	.0	.0	.3	.2	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.8	.3	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	9.9	36.4	9.3	1.2	.0	56.8	.0	6.9	11.2	.8	.0	.0	.0	21.0

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.0	.3	.0	.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.0	.3	
1-2	.0	1.6	.6	.0	.0	.0	2.2	.0	.1	.0	.0	.0	.0	.0	.1	
3-4	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.0	1.1	.0	.0	.0	3.1	.0	.4	.0	.0	.0	.0	.0	.4	99.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	1.0	4.9	.0	.0	.0	.0	5.9	
1-2	.0	12.5	5.9	.0	.0	.0	18.4	
3-4	.0	6.2	22.6	.3	.0	.0	29.2	
5-6	.0	1.0	18.7	4.9	.0	.0	24.6	
7	.0	.0	7.5	2.0	.0	.0	9.5	
8-9	.0	.0	2.6	3.9	.0	.0	6.6	
10-11	.0	.0	.0	2.3	.7	.0	3.0	
12	.0	.0	.0	1.0	.3	.0	1.3	
13-16	.0	.0	.0	1.3	.3	.0	1.6	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.0	24.6	57.4	15.7	1.3	.0	100.0	305

PERIOD: (OVER-ALL) 1949-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	.6	2.7	3.1	5.5	2.7	.2	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	75
6-7	.0	.2	2.5	13.3	9.4	3.9	2.3	.8	.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	162
8-9	.0	.2	.4	4.5	11.3	6.2	3.3	2.5	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	147
10-11	.0	.0	.4	.2	4.1	2.7	1.8	.6	2.1	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	60
12-13	.0	.0	.0	.2	.2	.4	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
>13	.0	.0	.0	.0	.0	.0	.0	.2	.8	.0	.0	.2	.2	.0	.0	.0	.0	.0	.0	.0	7
INDFT	.6	.0	1.6	1.0	1.4	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	28
TOTAL	6	15	39	121	142	65	45	27	20	3	3	1	0	0	0	0	0	0	0	0	487
PCT	1.2	3.1	8.0	24.8	29.2	13.3	9.2	5.5	4.1	.6	.6	.2	.0	.0	.0	.0	.0	.0	.0	.0	100.0

## ANNUAL

PERIOD: (PRIMARY) 1884-1972  
(OVER-ALL) 1855-1972

AREA 0019 SHAKK BAY  
25.55 111.5E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	5.4	4.3	1.1	.0	.0	.0	.0	10.8	2.2	1.3	.0	.0	.2	.0	85.5
NE	2.4	6.1	1.2	.0	.0	.0	.0	9.7	1.2	.5	.5	.1	2.0	.4	85.9
E	3.8	.6	2.3	.0	.0	.0	.0	6.7	.2	.5	.4	.1	1.3	.0	90.8
SE	.7	.4	.5	.0	.0	.0	.0	1.6	.5	.5	.2	.0	1.3	.2	95.9
S	.9	.9	.5	.0	.0	.0	.0	2.2	1.3	.5	.2	.0	2.4	.1	93.4
SW	1.3	2.6	.6	.0	.0	.0	.0	4.4	1.4	.6	.1	.0	2.9	.1	90.7
W	2.0	3.8	1.6	.0	.0	.0	.0	7.4	1.0	2.0	.0	.0	1.1	.0	88.7
NW	1.3	3.9	.1	.0	.0	.0	.0	5.3	3.2	.1	1.6	.0	.0	.0	89.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.0
CALM	.8	.0	.0	.0	.0	.0	.0	.8	.7	2.4	.0	.0	4.6	.0	91.6
TOT PCT	1.2	1.3	.5	.0	.0	.0	.0	3.0	1.1	.6	.2	*	2.1	.1	92.9
TOT OBS:	8263														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00003	1.7	1.2	.7	.0	.0	.0	.0	3.5	1.2	.1	.2	*	2.3	.1	92.7
06009	.7	1.2	.5	.0	.0	.0	.0	2.4	.9	.1	.2	.0	2.7	.2	93.6
12015	1.1	1.2	.2	.0	.0	.0	.0	2.5	1.0	.8	.2	.0	2.4	.1	93.0
18021	1.4	1.6	.8	.0	.0	.0	.0	3.7	1.2	1.4	.2	.1	1.1	.1	92.3
TOT PCT	1.2	1.3	.5	.0	.0	.0	.0	3.0	1.1	.6	.2	*	2.1	.1	92.9
TOT OBS:	8346														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	.9	.7	.1	.0	.0		1.9	9.4		1.7	2.6	2.6	1.5	1.9	1.0	1.5	1.7
NE	.2	1.3	.8	.1	.0	.0		2.5	9.1		3.2	5.2	2.9	2.2	1.8	1.8	1.7	2.2
E	.3	2.8	2.9	.5	*	*		6.7	12.1		8.8	9.9	7.6	4.7	4.5	4.0	6.2	7.0
SE	.5	6.6	13.7	4.6	.2	*		25.6	15.3		28.6	22.7	27.1	21.5	21.0	18.6	27.3	29.4
S	.7	9.9	21.8	6.5	.3	.0		39.2	14.4		36.4	36.7	36.8	41.5	43.3	49.6	39.8	36.0
SW	.3	6.2	6.3	1.2	.1	.0		14.1	12.4		12.0	13.1	12.9	17.5	16.6	16.4	13.8	13.1
W	.3	2.5	2.1	.6	.1	.0		5.6	11.5		4.9	5.6	5.8	6.0	6.3	4.6	5.3	5.8
NW	.2	1.6	1.4	.3	*	.0		3.6	10.3		3.6	3.8	3.6	4.1	3.6	3.9	3.3	4.0
VAR	*	*	.0	.0	.0	.0		*	.6		.0	.0	.0	.0	.1	.0	.0	.3
CALM	.8							.8	.0		.8	.5	.7	.8	.8	.2	1.2	.8
TOT OBS							17019		13.9		3466	676	3341	1319	3598	452	2748	1419
TOT PCT	3.8	31.8	49.8	13.9	.7	*		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	03	06	18
N	.5	1.0	.3	*	.0		1.9	9.4	1.9	2.3	1.6
NE	.9	1.3	.3	.1	.0		2.5	9.1	3.5	2.7	1.8
E	1.4	3.5	1.0	.2	*		6.7	12.1	9.0	6.7	4.4
SE	2.5	11.9	10.0	1.2	*		25.6	15.3	27.7	25.7	20.8
S	3.5	19.0	14.0	1.6	*		39.2	14.4	36.4	48.2	44.1
SW	2.4	8.1	3.1	.4	*		14.1	12.4	12.1	14.1	16.6
W	1.2	2.8	1.3	.3	*		5.6	11.5	5.0	5.9	6.1
NW	.9	2.0	.7	.1	*		3.6	10.3	3.6	3.7	3.6
VAR	*	.0	.0	.0	.0		*	.6	.0	.0	.1
CALM	.8						.8	.0	.7	.7	.8
TOT OBS					17019		13.9		4142	4660	4050
TOT PCT	14.2	49.7	32.3	3.6	.1		100.0		100.0	100.0	100.0



PERIOD: (PRIMARY) 1884-1972  
(OVER-ALL) 1855-1972

ANNUAL

AREA 0019 SHARK BAY  
25.55 111.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			4R+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00603	.7	3.5	33.2	48.5	13.3	.7	.0	13.7	100.0	4142
06609	.7	2.7	30.9	51.4	13.5	.7	*	14.0	100.0	4060
12615	.8	3.4	32.9	48.4	13.9	.7	.0	13.8	100.0	4050
18621	1.0	2.2	30.4	50.5	15.0	.8	*	14.3	100.0	4167
TOT								13.9		17019
PCT	.8	2.9	31.8	49.8	13.9	.7	*	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.7	.3	.4	.3		4.0
NE	1.1	.4	.4	.3		2.8
E	3.8	1.0	1.3	.5		3.1
SE	11.6	4.8	6.9	1.9		3.3
S	18.1	9.3	10.7	3.0		3.4
SW	4.5	3.6	3.9	1.2		3.7
W	1.4	1.5	1.7	.7		3.9
NW	.9	.6	1.0	.4		3.6
VAR	.1	.0	.0	.0		.2
CALM	.8	.1	.2	.1		2.5
TOT OBS					6614	3.4
TOT PCT	43.1	21.6	26.9	8.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	*	.1	.2	.1	.1	*	*	*	1.4	
.0	.0	.0	*	.2	.2	.1	*	*	*	1.9	
.0	.0	*	.2	.4	.4	.2	*	*	*	5.3	
.0	*	.1	.5	2.2	1.9	1.3	.4	.1	.1	18.6	
*	*	.1	1.1	3.9	3.3	1.5	.5	.1	.2	30.4	
*	.0	.1	.5	1.5	1.0	.7	.1	*	*	9.4	
*	.0	*	.2	.6	.5	.2	*	*	*	3.5	
.0	.0	*	.1	.4	.3	.1	.0	.0	*	1.9	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
.0	.0	.0	*	.1	.1	.0	.0	*	.0	.9	
.1	*	.4	2.7	9.5	7.9	4.1	1.1	.3	.6	73.5	6814 100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
* OR >4500	.7	.8	.8	.8	.8	.8	.8	.8
* OR >4000	1.8	1.9	1.9	1.9	1.9	1.9	1.9	1.9
* OR >3500	5.7	6.0	6.0	6.0	6.0	6.0	6.0	6.0
* OR >3000	12.6	13.8	13.8	13.9	13.9	13.9	13.9	13.9
* OR >2500	20.0	22.8	23.3	23.3	23.3	23.3	23.3	23.3
* OR >2000	21.8	25.3	25.8	25.9	25.9	25.9	25.9	25.9
* OR >1500	22.0	25.5	26.2	26.3	26.3	26.3	26.3	26.3
* OR >1000	22.0	25.5	26.2	26.3	26.3	26.3	26.3	26.3
* OR >500	22.0	25.5	26.2	26.3	26.3	26.3	26.3	26.3
* OR >0	22.0	25.6	26.2	26.4	26.4	26.4	26.4	26.4

TOTAL NUMBER OF OBS: 6671

PCT FREQ NH <5/8: 73.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
21.2	16.5	13.6	12.5	9.0	6.5	7.2	6.6	6.9	* 7217

PERIOD: (PRIMARY) 1884-1972  
(OVER-ALL) 1855-1972

ANNUAL

AREA 0019 SHARK BAY  
25.5S 111.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	*	.0	*	*	.0	.0	.0	.0	*	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	*	.0	*	*	.0	.0	.0	.0	*	
1/2<1	PCP	*	*	.0	.0	.0	.0	.0	.0	.0	.0	*	
	NO PCP	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	*	
	TOT %	*	*	.0	.0	*	.0	.0	.0	.0	.0	*	
1<2	PCP	.0	.0	.0	*	*	*	*	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.1	.1	*	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.1	.1	.1	*	.0	.0	.0	.3	
2<5	PCP	*	*	*	.1	.1	*	.1	*	.0	.0	.4	
	NO PCP	*	*	*	.3	.5	.2	.1	*	.0	*	1.2	
	TOT %	*	*	.1	.3	.7	.2	.1	*	.0	*	1.6	
5<10	PCP	.1	.1	.1	.2	.2	.3	.2	.1	.0	*	1.3	
	NO PCP	.3	.3	.7	3.7	5.5	1.9	.7	.4	.0	.1	13.6	
	TOT %	.4	.4	.8	3.8	5.7	2.3	.9	.5	.0	.1	14.9	
10+	PCP	.1	.1	.1	.2	.2	.2	.3	.1	.0	.0	1.2	
	NO PCP	1.5	2.2	5.7	20.4	33.8	10.6	4.4	2.4	.1	.9	82.0	
	TOT %	1.6	2.3	5.8	20.6	34.0	10.8	4.6	2.5	.1	.9	83.2	
TOT OBS													
TOT PCT													
		2.0	2.7	6.7	24.8	40.6	13.4	5.6	3.0	.1	1.0	100.0	8256

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	*	*	*	.0	.0	*	
	4-10	.0	.0	.0	*	*	.0	.0	.0	.0	.0	*	
	11-21	.0	.0	.0	.0	*	*	.0	.0	.0	.0	*	
	22+	.0	.0	*	*	*	.0	*	*	.0	.0	*	
	TOT %	.0	.0	*	*	*	*	*	*	.0	.0	.1	
1/2<1	0-3	.0	.0	.0	.0	*	*	.0	.0	.0	.0	*	
	4-10	*	.0	*	*	*	*	.0	.0	.0	.0	.1	
	11-21	*	*	.0	*	.1	*	.0	*	.0	.0	.1	
	22+	.0	.0	.0	*	.1	*	.0	.0	.0	.0	.1	
	TOT %	*	*	*	*	.2	.1	*	*	.0	.0	.4	
1<2	0-3	*	.0	.0	*	*	.0	.0	.0	.0	.0	.1	
	4-10	*	*	*	.1	.3	.2	*	*	.0	.0	.6	
	11-21	*	*	*	.3	.8	.2	*	*	.0	.0	1.3	
	22+	*	*	*	.1	.5	.1	*	.0	.0	.0	.7	
	TOT %	*	*	*	.4	1.6	.5	*	*	.0	*	2.7	
2<5	0-3	*	.0	.0	.0	*	*	.0	*	.0	.0	*	
	4-10	*	*	*	.1	.2	.1	*	*	.0	.0	.4	
	11-21	*	*	*	.1	.2	.1	*	*	.0	.0	.5	
	22+	.0	*	*	*	.1	*	*	.0	.0	.0	.2	
	TOT %	*	*	*	.2	.5	.2	.1	*	.0	*	1.2	
5<10	0-3	*	*	.1	.2	.2	.1	.1	.1	.0	.2	.9	
	4-10	.3	.5	1.1	1.9	2.4	2.0	.8	.6	.0	.0	10.0	
	11-21	.3	.4	.9	4.2	6.5	2.2	.7	.5	.0	.0	15.5	
	22+	.1	*	.1	1.5	2.3	.6	.3	.1	.0	.0	5.0	
	TOT %	.7	.9	2.2	7.8	11.8	4.8	1.9	1.2	.0	.2	31.5	
10+	0-3	.1	.2	.2	.3	.6	.3	.2	.2	*	.6	2.8	
	4-10	.7	1.0	1.9	4.6	6.8	4.0	1.6	.9	*	*	21.5	
	11-21	.3	.5	1.7	8.8	15.4	3.8	1.3	.7	.0	.0	32.5	
	22+	*	.1	.3	2.5	3.8	.5	.2	.1	.0	.0	7.4	
	TOT %	1.2	1.7	4.1	16.2	26.6	8.5	3.4	1.9	*	.6	64.2	
TOT OBS													
TOT PCT													
		1.9	2.7	6.3	24.7	40.8	14.1	5.5	3.2	*	.8	100.0	13203

## ANNUAL

PERIOD: (PRIMARY) 1964-1972  
(OVER-ALL) 1955-1972AREA 0019 SHARK BAY  
25.55 111.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00603	.1	.1	.5	2.8	11.8	9.0	4.8	1.2	.4	.6	31.4	68.6	1838
06609	.1	.0	.2	2.2	7.8	7.0	3.7	1.2	.2	.4	22.8	77.2	1829
12615	.0	.1	.3	2.0	7.4	5.3	2.9	.8	.1	.6	19.3	80.7	1703
18621	.1	.0	.4	3.3	8.8	8.5	4.1	1.1	.3	.5	27.0	73.0	1650
TOT PCT	.1	*	.3	2.5	9.0	7.5	3.9	1.1	.3	.5	25.2	74.8	7020 100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2-1	1-2	2-5	5-10	10+	TOTAL OBS
00603	.1	.7	3.3	1.2	28.0	66.7	3587
06609	*	.3	2.9	.7	28.6	67.6	3159
12615	.1	.4	3.0	1.8	34.2	60.5	3506
18621	.0	.3	1.7	.9	36.4	60.6	3169
TOT PCT	.1	.4	2.7	1.2	31.8	63.8	13421 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00603	.1	.7	4.5	28.5	67.0	1761
06609	.1	.3	3.1	21.1	75.9	1749
12615	.0	.4	3.2	17.4	79.3	1616
18621	.1	.4	4.8	24.1	71.0	1545
TOT PCT	.1	.5	3.9	22.8	73.3	6671 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	*	*	*	.0	.0	.0	.0	.0	*	*
88/89	.0	.0	.0	.1	.2	.1	.0	.0	.3	.3
80/84	.0	.0	*	.1	.6	1.1	.9	.3	3.0	3.0
75/79	.0	.1	.1	.8	1.9	5.5	5.3	2.6	16.4	16.4
70/74	.0	.1	.6	2.0	7.4	10.1	10.7	4.4	35.2	35.2
65/69	.0	*	.6	3.7	9.0	11.1	7.6	2.5	34.4	34.4
60/64	.0	.0	.1	1.1	3.6	2.8	1.7	.5	9.9	9.9
55/59	.0	.0	.0	*	.1	.2	.2	.1	.6	.6
50/54	.0	.0	.0	.0	*	.0	*	.0	*	*
TOTAL PCT	*	.2	1.4	7.7	27.9	30.9	26.4	10.5	10317	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	C&M
90	.0	*	.0	*	*	.0	.0	.0	.0	.0
88	*	*	*	.1	.1	.1	*	*	.0	*
80	.1	.1	.2	.6	1.3	.4	.1	.1	.0	*
75	.4	.5	1.0	3.5	7.5	2.3	.6	.5	.0	.2
70	.8	.9	1.7	8.1	16.8	4.4	1.3	1.0	*	.3
65	.6	.9	2.3	8.9	12.3	5.3	2.6	1.3	*	.2
60	.1	.2	1.1	2.9	2.9	2.0	.6	.1	*	*
55	*	*	.1	.2	.1	.1	*	*	.0	*
50	.0	.0	*	*	*	.0	.0	.0	.0	.0
TOTAL	1.9	2.6	6.4	24.3	41.0	14.6	5.2	3.1	*	.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	94	81	77	70	64	62	54	70.4	4093
06609	91	82	79	72	66	64	57	71.9	4497
12615	94	80	77	70	66	63	53	70.5	4007
18621	92	76	74	69	64	62	54	68.8	4088
TOT	94	81	77	70	65	63	53	70.4	16685

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	*	9.6	22.1	30.9	27.0	10.4	75	2826
06609	.0	14.6	29.4	32.0	18.5	5.5	71	2432
12615	.0	7.5	20.3	30.8	28.9	12.5	76	2743
18621	.0	6.3	20.0	29.2	30.8	13.7	76	2498
TOT	1	1015	2417	3224	2735	1107	75	10499

## ANNUAL

PERIOD: (PRIMARY) 1884-1972  
(OVER-ALL) 1855-1972

AREA 0019 SHARK BAY  
25.95 111.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	53 56	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.0	.0	.0	*	.0	*	*	.0	5	.0	.1
11/13	.0	.0	.0	.0	*	*	*	.1	.1	*	*	20	.0	.3
9/10	.0	.0	.0	*	*	*	*	.1	.2	.0	.0	28	.0	.4
7/8	.0	.0	.0	.1	.1	.2	.2	.3	.2	*	.0	75	*	1.1
6	.0	.0	.0	*	.1	.2	.3	.2	.1	.0	.0	60	.0	.9
5	.0	.0	.0	.1	.2	.5	.8	.4	.1	.0	.0	136	.0	2.1
4	.0	.0	*	.1	.4	.8	.7	.4	.1	.0	.0	159	.0	2.4
3	.0	.0	*	.1	.5	1.4	1.1	.3	*	.0	.0	230	.0	3.5
2	.0	.0	.1	.4	1.5	1.9	1.3	.3	.1	.0	.0	363	*	5.5
1	.0	.0	.1	1.0	2.4	3.0	1.6	.2	*	.0	.0	542	*	8.3
0	.0	.0	.3	1.7	4.4	3.9	1.7	.3	.0	.0	.0	805	.1	12.3
-1	.0	*	.3	2.8	4.5	4.1	1.1	.2	.0	.0	.0	840	*	12.9
-2	.0	*	.5	4.0	4.9	2.9	.6	.1	.0	.0	.0	837	*	13.0
-3	.0	*	.7	4.1	3.0	1.9	.4	*	.0	.0	.0	642	.0	10.0
-4	.0	.1	1.0	4.0	2.8	1.2	.1	*	.0	.0	.0	588	.0	9.2
-5	.0	*	1.1	2.9	1.9	.8	.1	*	.0	.0	.0	440	*	7.0
-6	.0	.1	.8	1.9	.3	.4	.0	.0	.0	.0	.0	258	*	4.1
-7/-8	.0	.2	1.3	1.9	.8	.3	.1	.0	.0	.0	.0	286	.0	4.6
-9/-10	.0	.1	.5	.6	.1	*	.0	.0	.0	.0	.0	86	*	1.3
-11/-13	*	.1	.3	.2	*	.0	.0	.0	.0	.0	.0	43	.0	.7
-14/-16	.0	.0	.1	*	.0	.0	.0	.0	.0	.0	.0	6	.0	.1
-17/-19	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	*
TOTAL												6450		
PCT	*	.7	7.2	25.9	28.5	23.6	10.3	2.9	.8	.1	*	100.0	.2	99.8

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.1	.0	.0	.0	.0	.2	.1	.3	.0	.0	.0	.0	.4
1-2	*	.4	.1	.0	.0	.0	.5	*	.7	.2	.0	.0	.0	.9
3-4	*	.3	.4	.0	.0	.0	.7	.0	.2	.5	.0	.0	.0	.6
5-6	.0	*	.3	*	.0	.0	.4	.0	.1	.2	*	.0	.0	.3
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	*	.0	.0	*	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	.8	.8	.1	.0	.0	1.8	.1	1.3	.8	.1	.0	.0	2.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.3	.0	.0	.0	.0	.4	.2	.6	*	.0	.0	.0	.8
1-2	.1	1.4	.2	.0	.0	.0	1.7	*	3.1	1.0	.0	.0	.0	4.0
3-4	.0	.7	1.5	*	.0	.0	2.3	*	1.5	4.7	.2	.0	.0	6.4
5-6	.0	.1	1.1	.1	.1	.0	1.4	.0	.3	4.4	.7	*	.0	5.5
7	.0	.1	.4	.2	.0	.0	.6	.0	.0	1.4	1.2	.0	.0	2.6
8-9	.0	.0	.0	.1	.0	.0	.1	.0	*	.7	.8	*	.0	1.6
10-11	.0	.0	.0	.1	.1	.0	.1	.0	.0	.1	.6	*	.0	.7
12	.0	.0	.0	.0	*	.0	*	.0	.0	*	.2	*	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.2	*	.0	.2
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.1	2.6	3.3	.5	.1	.0	6.6	.3	5.5	12.4	4.0	.1	.0	22.2

PERIOD: (OVER-ALL) 1963-1972

ANNUAL

AREA 0019 SHARK BAY  
25.55 111.56

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOT PCT
<1	.1	.9	*	.0	.0	.0	1.1	.2	.8	.0	.0	.0	.0	.9	
1-2	.1	4.7	2.0	.0	.0	.0	6.8	*	3.4	1.1	.0	.0	.0	4.5	
3-4	.1	3.3	10.7	.3	.0	.0	14.4	*	1.9	2.6	.1	.0	.0	4.7	
5-6	.0	.7	8.6	2.1	*	.0	11.4	.0	.2	1.7	.2	*	.0	2.1	
7	.0	*	3.2	1.9	*	.0	5.2	.0	*	.7	.2	*	.0	1.0	
8-9	.0	*	1.3	1.5	*	.0	2.8	.0	*	.2	.1	.0	.0	.4	
10-11	.0	.0	.3	.6	.1	.0	1.0	.0	.0	.1	*	.0	.0	.1	
12	.0	.0	*	.2	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	*	.1	*	.0	.2	.0	.0	.0	.1	*	.0	.1	
17-19	.0	.0	.0	.0	*	.0	*	.0	.0	.0	.0	*	.0	*	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	
23-25	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	9.7	26.1	6.8	.3	.0	43.2	.2	6.3	6.5	.8	.1	.0	13.9	

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOT PCT
<1	.1	.2	.0	.0	.0	.0	.3	*	.1	.0	.0	.0	.0	.1	
1-2	.0	1.2	.3	.0	.0	.0	1.6	.1	.6	.2	.0	.0	.0	.9	
3-4	*	.9	.9	.0	.0	.0	1.8	*	.6	.6	*	.0	.0	1.3	
5-6	.0	.1	.9	*	.0	.0	1.0	.0	*	.4	.1	.0	.0	.5	
7	.0	*	.1	.1	.0	.0	.3	.0	.0	.1	.1	.0	.0	.2	
8-9	.0	.0	.1	*	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
13-16	.0	.0	.1	*	*	.0	.2	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.2	2.4	2.3	.3	*	.0	5.2	.1	1.4	1.4	.3	.0	.0	3.2	98.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.6	3.3	.1	.0	.0	.0	6.0	
1-2	.5	15.5	5.0	.0	.0	.0	21.0	
3-4	.2	9.3	21.8	.7	.0	.0	32.0	
5-6	*	1.5	17.5	3.4	.2	.0	22.6	
7	.0	.2	6.0	3.7	*	.0	9.8	
8-9	.0	.1	2.4	2.5	*	.0	5.0	
10-11	.0	.0	.4	1.4	.1	.0	2.0	
12	.0	.0	*	.3	.1	.0	.5	
13-16	.0	.0	.2	.5	.1	.0	.8	
17-19	.0	.0	.0	*	*	.0	.1	
20-22	.0	.0	*	.1	.0	.0	.1	
23-25	.0	.0	.0	*	.0	.0	*	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.4	29.9	53.4	12.7	.6	.0	100.0	3595

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<6	6-7	7-8	8-9	9-10	10-11	11-12	12-13	13-14	14-15	15-16	16-17	17-18	18-19	19-20	20-22	22-25	25-32	32-40	40-48	48-60	60-70	70-86	87+	TOTAL	MEAN HGT
<6	.8	4.6	7.4	4.1	2.1	.8	.4	.1	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1088	4
6-7	.0	.8	5.7	8.8	6.9	3.2	1.5	.8	.4	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1543	6
8-9	.0	.2	1.5	5.2	6.8	5.4	2.7	1.6	1.2	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1340	8
10-11	.0	.1	.5	1.5	3.4	3.1	1.9	1.0	1.0	.2	*	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	678	8
12-13	.0	.0	.5	.6	.8	1.0	.8	.6	.7	.1	.1	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	281	9
>13	.0	.0	.0	.3	.3	.3	.3	.3	.2	*	.1	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	101	9
INDET	.7	.5	1.2	1.4	1.2	.6	.4	.2	.2	*	*	*	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	353	5
TOTAL PCT	1.5	6.3	16.7	21.9	21.4	14.4	8.1	4.6	3.9	.6	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5384	6



PERIOD: (PRIMARY) 1884-1972  
(OVER-ALL) 1855-1972

TABLE 20

AREA 0019 SHARK BAY  
25.55 111.5E

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
89/90	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
87/88	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	*
85/86	.1	.1	.1	.2	.0	.0	.0	.0	.0	.0	.0	.0	5	*
83/84	.2	1.4	1.1	.5	.1	.3	.0	.0	.0	.0	.0	.0	40	.3
81/82	1.4	3.4	5.0	3.6	1.2	.2	.0	.0	.0	.0	.0	.2	163	1.3
79/80	4.1	8.3	10.7	9.4	5.6	1.3	.1	.0	.0	.0	.3	.9	444	3.5
77/78	13.1	16.4	17.6	18.3	14.9	4.9	1.0	.2	.1	.4	1.0	2.6	979	7.6
75/76	20.1	25.3	23.2	26.4	19.3	12.6	4.9	1.3	.8	1.4	2.3	10.3	1590	12.4
73/74	27.8	27.4	23.9	21.8	24.0	20.0	13.5	6.0	3.7	6.9	10.2	28.7	2244	17.5
71/72	23.1	12.3	13.2	13.1	20.3	23.6	22.8	17.7	14.5	19.6	26.4	28.6	2472	19.2
69/70	8.9	3.6	3.5	5.0	10.6	19.3	29.0	27.5	30.4	29.1	29.9	20.7	2324	18.1
67/68	1.1	1.5	1.1	1.2	3.2	11.2	19.9	28.7	29.5	24.9	22.2	6.1	1645	12.8
65/66	.2	.1	.2	.5	.5	4.1	3.9	12.0	14.2	13.8	5.7	1.5	653	5.1
63/64	.0	.0	.4	.0	.2	1.7	1.8	4.0	4.8	2.9	1.8	.2	198	1.5
61/62	.0	.0	.0	.0	.1	.5	.9	1.8	1.8	.7	.1	.0	67	.5
59/60	.0	.0	.0	.0	.0	.2	.2	.8	.3	.4	.0	.0	19	.2
57/58	.0	.0	.0	.0	.0	.1	.1	.1	.1	.0	.0	.0	4	*
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	1016	1035	1069	1237	1009	1158	1137	1113	1199	1102	927	807	12849	100.0
MEAN	73.9	75.1	75.3	75.1	73.8	71.5	70.0	68.6	68.4	68.9	69.8	71.9	71.8	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1011	1009	1010	1009	1010	1008	1010	1009	1010	1078
FEB	1011	1010	1011	1009	1010	1010	1010	1010	1010	1044
MAR	1013	1013	1012	1011	1013	1013	1012	1012	1013	1033
APR	1016	1015	1015	1015	1016	1015	1015	1015	1015	1197
MAY	1017	1016	1017	1016	1017	1018	1017	1016	1017	1149
JUN	1017	1017	1016	1017	1017	1018	1017	1017	1017	1157
JUL	1020	1020	1018	1018	1019	1020	1019	1020	1019	985
AUG	1019	1019	1018	1017	1019	1018	1019	1017	1019	977
SEP	1018	1018	1018	1017	1018	1017	1018	1017	1018	1158
OCT	1017	1016	1017	1016	1016	1015	1016	1016	1016	958
NOV	1015	1014	1015	1013	1014	1013	1014	1013	1014	905
DEC	1013	1013	1013	1011	1012	1012	1012	1012	1012	722
ANN	1016	1015	1015	1014	1015	1015	1015	1015	1015	12363
OBS	2670	604	2300	749	2713	436	2122	769		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	988	996	1004	1008	1010	1013	1016	1018	1025
FEB	997	1001	1004	1007	1010	1013	1017	1019	1022
MAR	999	1001	1006	1010	1013	1015	1018	1021	1028
APR	1002	1007	1010	1013	1015	1017	1021	1023	1030
MAY	1000	1004	1010	1014	1017	1019	1022	1024	1030
JUN	999	1004	1010	1014	1017	1020	1024	1026	1031
JUL	1002	1008	1011	1017	1020	1022	1025	1028	1031
AUG	1003	1010	1012	1016	1019	1021	1024	1027	1031
SEP	1001	1009	1012	1016	1018	1020	1024	1026	1032
OCT	1006	1008	1011	1014	1016	1019	1022	1024	1028
NOV	1003	1006	1009	1012	1014	1016	1019	1022	1023
DEC	1001	1005	1007	1010	1013	1015	1018	1020	1025

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1855-1969

JANUARY

AREA 0020 BARROW ISLAND  
19.55 114.9E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	TWDR LTNG	FGD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	ND SIG WFA
N	5.1	.0	.0	.0	.0	.0	.0	5.1	.0	10.3	.0	.0	5.1	.0	84.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	13.4	.0	.0	.0	.0	.0	86.6
E	12.4	.0	3.4	.0	.0	.0	.0	15.7	3.4	.0	.0	.0	.0	.0	80.9
SE	10.0	.0	5.3	.0	.0	.0	.0	16.0	12.8	4.3	.0	.0	.0	.0	87.0
S	1.6	.0	.0	.0	.0	.0	.0	1.6	.5	1.0	1.0	.0	4.0	.0	91.9
SW	.2	.0	.4	.0	.0	.0	.0	.6	.1	.3	.8	.0	5.2	.0	93.0
W	1.2	1.2	.7	.0	.0	.0	.0	3.2	1.4	1.6	.5	.0	5.7	.0	87.4
NW	.0	.5	.0	.0	.0	.0	.0	.5	.0	2.6	2.1	.0	12.0	2.1	80.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	1.6	.3	.6	.0	.0	.0	.0	2.5	1.3	1.3	.7	.0	4.9	.1	89.1
TOT OBS:	667														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	TWDR LTNG	FGD PCPN	FGD WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	ND SIG WFA
00003	.9	.0	.9	.0	.0	.0	.0	1.8	.5	.0	.0	.0	3.2	.0	94.5
06009	2.1	.0	.7	.0	.0	.0	.0	2.9	1.4	.0	2.9	.0	9.3	.7	82.9
12015	2.2	.0	.0	.0	.0	.0	.0	2.2	1.7	2.2	.0	.0	5.0	.0	89.0
18021	1.5	1.5	.7	.0	.0	.0	.0	3.7	2.2	4.4	.7	.0	2.9	.0	86.8
TOT PCT	1.6	.3	.6	.0	.0	.0	.0	2.5	1.3	1.5	.7	.0	4.9	.1	89.0
TOT OBS:	675														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	.5	1.1	.9	.*	.3	.0		2.8	12.2		1.5	3.4	4.6	3.2	2.5	6.5	.6	2.2
NE	1.0	1.1	1.3	.3	.1	.0		3.7	10.9		1.9	5.9	3.2	6.5	2.6	5.9	2.0	6.1
E	.5	1.3	.9	.6	.3	.0		3.6	14.2		3.5	4.8	2.6	6.5	2.7	3.5	4.4	1.7
SE	.3	1.9	1.1	.5	.1	.0		3.9	11.7		5.4	7.7	2.8	2.3	1.8	3.5	7.4	5.3
S	1.1	7.7	8.4	1.6	.3	.0		19.1	12.7		26.1	16.7	24.3	4.9	17.2	8.5	24.0	17.5
SW	1.3	11.3	15.8	3.0	.5	.0		32.0	12.9		34.2	28.6	34.7	21.4	35.5	30.6	33.7	25.8
W	1.0	10.8	9.3	3.1	.7	.0		24.9	13.1		20.0	23.8	16.7	39.0	28.5	30.3	22.4	29.4
NW	.2	4.9	2.2	.8	.3	.0		8.5	12.0		5.3	6.6	9.7	16.2	8.1	11.2	7.3	11.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.5							1.5	.0		2.1	2.5	1.4	.0	.8	.0	3.2	.0
TOT OBS	86	463	461	114	29	0	1153		12.6		233	160	142	77	240	85	126	90
TOT PCT	7.5	40.2	40.0	9.9	2.5	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	1.2	1.0	.3	.3	.1			2.8	12.2		2.3	4.1	3.6	1.3
NE	1.6	1.0	1.0	.1	.0			3.7	10.9		3.6	4.3	3.5	3.7
E	1.3	.7	1.3	.2	.1			3.6	14.2		4.1	4.0	2.9	3.2
SE	1.5	1.5	.5	.*	.*			3.9	11.7		6.3	2.6	2.2	3.6
S	3.9	10.0	4.7	.5	.0			19.1	12.7		22.3	17.5	14.9	21.3
SW	5.7	18.4	6.8	.9	.1			32.0	12.9		31.9	30.0	34.3	30.4
W	4.9	13.4	4.8	1.6	.1			24.9	13.1		21.5	24.5	29.0	25.3
NW	2.2	4.7	1.3	.1	.2			8.5	12.0		5.8	12.0	8.9	9.3
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	1.5							1.5	.0		2.3	.9	.6	1.9
TOT OBS	275	504	240	47	7	1153			12.6		393	219	325	216
TOT PCT	23.9	50.7	20.8	4.1	.6			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1855-1969

JANUARY

AREA 0020 BARROW ISLAND  
19.55 114.9E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	2.3	8.9	41.7	37.9	6.1	3.1	.0	11.6	100.0	393
0600	.9	2.7	37.4	46.1	9.1	3.7	.0	13.7	100.0	219
1200	.6	0.2	37.5	40.9	12.3	2.5	.0	13.0	100.0	325
1800	1.9	3.7	44.0	36.1	13.9	.5	.0	12.6	100.0	216
TOT	.17	.69	46.3	46.1	11.4	2.9	.0	12.6		1153
PCT	1.5	0.0	40.2	40.0	9.9	2.5	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.2	.2	.6	.5		3.3
NE	.4	.2	.7	.7		5.5
E	.8	.0	.6	1.7		5.7
SE	.9	.3	.5	1.6		5.3
S	9.4	4.2	5.3	1.3		3.1
SW	17.3	8.9	6.0	2.5		2.9
W	10.7	3.9	4.2	4.8		3.7
NW	6.0	1.4	1.0	.6		2.3
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.6	.2		4.2
TOT OBS	223	90	92	66	471	3.3
TOT PCT	47.3	19.1	19.5	14.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	100	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	.0	2.1
.0	.0	.0	.0	.2	.9	.0	.0	.0	.0	.0	1.0
.0	.0	.0	.5	.4	.9	.2	.2	.0	.0	.0	.8
.0	.0	.2	.6	.4	.6	.2	.0	.0	.0	.0	1.5
.0	.0	.2	.7	2.2	1.4	.0	.4	.2	.3	.3	15.1
.0	.0	.1	.1	2.7	1.8	.6	.2	.3	.3	.3	28.8
.0	.0	.3	.8	3.1	.8	.4	.0	.0	1.0	1.0	17.3
.0	.0	.1	.0	.3	.3	.3	.0	.0	.1	.1	8.1
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	1.1
.0	.0	.3	1.3	4.6	2.3	.8	.2	.3	.7	.7	35.6
.0	.0	.6	2.8	9.8	7.0	1.7	.4	.6	1.5	75.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.8	1.9	2.1	2.1	2.1	2.1	2.1	2.1
>6000	1.1	2.3	2.5	2.5	2.5	2.5	2.5	2.5
>5500	1.9	4.0	4.2	4.2	4.2	4.2	4.2	4.2
>5000	6.3	10.5	11.2	11.2	11.2	11.2	11.2	11.2
>4500	11.8	19.8	21.1	21.1	21.1	21.1	21.1	21.1
>4000	12.6	21.5	22.9	23.8	23.8	23.8	23.8	23.8
>3500	13.1	22.1	23.6	24.4	24.4	24.4	24.4	24.4
>3000	13.1	22.1	23.6	24.4	24.4	24.4	24.4	24.4
>2500	13.1	22.1	23.6	24.4	24.4	24.4	24.4	24.4
>2000	13.1	22.1	23.6	24.4	24.4	24.4	24.4	24.4
TOTAL	62	105	112	116	116	116	116	116

TOTAL NUMBER OF OBS: 475

PCT FREQ NH <5/8: 75.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	TOTAL OBS
17.6	23.8	15.4	12.7	4.8	6.1	4.0	5.1	10.5	495

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1855-1969

JANUARY

AREA 0020 BARROW ISLAND  
19.55 114.9E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.2	.4	*	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.5	.2	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.1	*	.0	.0	.1	.0	.0	.0	.0	
	NO PCP	.2	.1	.1	.0	1.3	.0	.5	.2	.0	.0	.0	
	TOT %	.2	.1	.3	*	1.3	.0	.7	.2	.0	.0	.0	
5<10	PCP	.1	.0	.3	*	.0	*	.3	.0	.0	.0	.0	
	NO PCP	.4	.1	.1	1.1	4.5	6.6	4.9	2.3	.0	.1	20.4	
	TOT %	.6	.1	.6	1.1	4.5	6.6	5.1	2.3	.0	.1	21.1	
10+	PCP	.0	.0	.1	.3	.0	.1	.3	*	.0	.0	.0	
	NO PCP	2.1	2.3	2.3	1.9	16.8	27.1	15.0	4.6	.0	1.2	73.3	
	TOT %	2.1	2.3	2.4	2.2	16.8	27.2	15.3	4.7	.0	1.2	74.2	
TOT OBS													
TOT PCT													
		2.9	2.5	3.3	3.5	23.2	34.9	21.1	7.2	.0	1.3	100.0	667

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.2	.1	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.4	.2	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.7	.2	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	
	4-10	.0	.1	.2	.0	.4	.4	.3	.2	.0	.0	.0	
	11-21	.1	.3	.2	.1	.6	1.3	.3	.2	.0	.0	.0	
	22+	.0	.0	.0	.1	.0	.7	.2	.0	.0	.0	.0	
	TOT %	.1	.4	.4	.2	1.7	2.4	.9	.4	.0	.0	.0	
2<5	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	
	4-10	.0	.0	.1	.0	.6	.3	.0	.0	.0	.0	.0	
	11-21	.1	.0	.0	.0	.4	.2	.3	.1	.0	.0	.0	
	22+	.1	.1	.1	*	.0	*	.2	.1	.0	.0	.0	
	TOT %	.2	.1	.2	*	1.0	.6	.5	.2	.0	.0	.0	
5<10	0-3	.3	.6	.1	.0	.0	.0	.3	.0	.0	.4	1.8	
	4-10	.3	.7	.3	1.0	1.9	2.3	4.1	2.6	.0	.0	13.1	
	11-21	.2	.5	.3	.7	2.7	4.0	2.7	.9	.0	.0	11.9	
	22+	.0	.0	.4	.4	.6	.8	.3	.2	.0	.0	2.3	
	TOT %	.8	1.8	1.1	1.8	5.1	7.0	7.4	3.7	.0	.4	29.2	
10+	0-3	.3	.6	.4	.3	1.0	1.3	.7	.3	.0	.9	5.9	
	4-10	1.1	.4	.6	.8	5.0	8.3	5.6	3.0	.0	.0	24.8	
	11-21	.5	.6	.5	.4	6.0	11.4	5.5	1.2	.0	.0	26.2	
	22+	.0	.3	.4	.5	1.2	1.1	.2	.0	.0	.0	3.8	
	TOT %	1.9	2.0	1.9	2.0	13.3	22.2	12.0	4.4	.0	.9	60.6	
TOT OBS													
TOT PCT													
		3.0	4.3	3.5	4.1	21.0	32.9	21.1	8.7	.0	1.3	100.0	905

JANUARY

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1855-1969AREA 0020 BARROW ISLAND  
19.55 114.9E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.0	1.6	3.9	15.0	6.3	1.0	.0	1.6	3.1	33.1	66.9	127
06009	.0	.0	.0	1.6	4.8	10.5	.0	.8	.8	1.6	20.2	79.8	124
12015	.0	.0	.0	4.2	7.6	2.5	.8	.8	.0	.8	16.8	83.2	119
18021	.0	.0	.9	.9	11.4	7.9	4.4	.0	.0	.0	25.4	74.6	114
TOT	0	0	3	13	47	33	8	2	3	7	116	368	464
PCT	.0	.0	.6	2.7	9.7	6.8	1.7	.4	.6	1.4	24.0	76.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
(GMT)							
00003	.0	.7	6.0	1.3	28.9	63.1	301
06009	.0	.0	6.2	2.8	26.6	64.4	177
12015	.4	1.5	7.7	4.2	30.3	55.9	261
18021	.0	1.1	5.3	3.2	34.8	55.6	187
TOT	1	8	59	26	278	554	926
PCT	.1	.9	6.4	2.8	30.0	59.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HR	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
(GMT)						
00003	.0	1.6	6.0	25.6	66.4	123
06009	.0	.0	5.7	18.9	75.4	122
12015	.0	.0	8.5	11.0	80.5	118
18021	.0	.9	4.5	23.6	71.8	110
TOT	0	3	32	94	349	475
PCT	.0	.6	6.7	19.8	73.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.5	.2	.0	.0	.0	.0	5	.8
90/94	.0	.2	.5	1.3	.8	1.0	.2	.0	24	3.9
85/89	.0	.2	.6	.3	2.3	9.0	5.3	.5	113	18.2
80/84	.0	.0	.0	.5	1.5	13.7	25.2	8.2	304	49.0
75/79	.0	.0	.0	.0	.2	4.4	13.4	6.8	153	24.7
70/74	.0	.0	.0	.0	.2	.6	1.5	1.1	21	3.4
TOTAL	0	2	10	14	31	178	282	103	620	100.0
PCT	.0	.3	1.6	2.3	5.0	28.7	45.5	16.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.0	.1	.2	.5	.0	.0	.0
90/94	.3	.3	.6	.5	.5	.9	.2	.5	.0
85/89	1.0	1.5	.5	.8	1.9	4.6	4.4	3.1	.0
80/84	2.5	3.2	2.3	2.5	4.1	13.5	13.7	6.3	1.0
75/79	.0	.1	.4	.6	7.5	9.2	5.6	1.3	.0
70/74	.0	.0	.0	.2	1.9	1.3	.0	.0	.0
TOTAL	3.9	5.1	3.7	4.5	16.0	29.6	24.4	11.2	1.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
(GMT)									
00003	98	93	89	82	75	73	70	82.2	391
06009	96	91	88	83	77	73	69	83.0	219
12015	96	95	88	81	75	73	72	81.5	374
18021	89	87	85	80	75	73	73	80.1	271
TOT	98	92	88	82	75	73	69	81.8	1155

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
(GMT)										
00003	.0	7.8	7.3	33.7	37.8	13.5	76	193		
06009	.0	.8	7.4	43.4	36.9	11.5	79	122		
12015	.0	4.4	2.2	22.4	51.4	19.7	82	183		
18021	.0	2.2	3.6	16.8	54.7	22.6	84	137		
TOT	0	27	32	182	287	107	81	635		



## JANUARY

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1855-1969

AREA 0020 BARROW ISLAND  
19.55 114.9E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	NO FOG
11/13	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
9/10	.0	.0	.0	.2	.8	.0	.0	9	.2	1.6
7/8	.0	.0	.0	.4	1.0	.4	.2	10	.0	2.0
6	.0	.2	.0	.0	.4	.4	.0	5	.0	1.0
5	.0	.0	.2	.8	.6	.2	.0	9	.0	1.8
4	.0	.0	.6	1.8	1.6	.2	.0	21	.0	4.3
3	.0	.2	1.0	1.6	1.0	.4	.0	21	.0	4.3
2	.0	.2	1.4	5.3	2.0	.0	.0	44	.0	8.9
1	.0	.2	.6	4.1	1.4	.0	.0	31	.0	6.3
0	.0	1.2	3.7	9.3	1.8	.0	.0	78	.0	15.9
-1	.0	1.8	6.1	6.9	1.8	.0	.0	82	.0	16.7
-2	.0	1.4	5.1	7.3	.2	.0	.0	69	.0	14.0
-3	.0	1.2	3.0	5.5	.4	.0	.0	50	.2	10.0
-4	.0	.8	2.4	2.2	.2	.0	.0	28	.2	5.5
-5	.2	.5	1.0	1.6	.4	.0	.0	19	.2	3.7
-6	.0	.4	.0	.4	.0	.0	.0	4	.0	.8
-7/-8	.0	.4	.8	.6	.0	.0	.0	9	.0	1.8
-9/-10	.0	.0	.4	.0	.0	.0	.0	2	.0	.4
TOTAL	1	43	130	237	68	12	1	492	.8	488
PCT	.2	8.7	26.4	48.2	13.8	2.4	.2	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.7	.6	.0	.0	.0	1.3	.0	.0	.1	.0	.0	.0	.1
3-4	.0	.0	.4	.0	.0	.0	.4	.0	.7	.4	.0	.0	.0	1.1
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.0	.8	.4	.0	.0	1.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.1	1.2	.0	.0	.0	2.3	.0	.7	1.2	.7	.0	.0	2.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.1	.4	.0	.0	.0	.0	.5
1-2	.0	.3	.0	.0	.0	.0	.3	.0	.4	.0	.0	.0	.0	.4
3-4	.0	.0	.0	.0	.0	.0	.0	.2	.4	.4	.0	.0	.0	.9
5-6	.0	.0	.4	.4	.0	.0	.7	.0	.0	.0	.4	.0	.0	.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.3	.4	.4	.0	.0	1.0	.3	1.4	.4	.4	.1	.0	2.3

PERIOD: (OVER-ALL) 1963-1969

JANUARY

AREA 0020 BARROW ISLAND  
19.55 114.9E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.3	.3	.4	.0	.0	.0	.6	.4	.5	.0	.0	.0	.0	.9	
1-2	.4	2.2	1.4	.0	.0	.0	4.0	.4	4.1	2.6	.0	.0	.0	7.0	
3-4	.5	.6	3.1	.0	.0	.0	4.3	.0	1.5	11.1	.0	.0	.0	12.6	
5-6	.0	.0	1.6	.6	.0	.0	2.2	.0	.7	6.9	.8	.0	.0	8.4	
7	.0	.0	2.3	1.6	.0	.0	3.9	.0	.0	3.9	1.3	.0	.0	5.2	
8-9	.0	.0	.4	.5	.9	.0	1.8	.0	.0	.1	1.2	.1	.0	1.4	
10-11	.0	.0	1.0	.0	.0	.0	1.0	.0	.0	1.2	1.1	.0	.0	2.2	
12	.0	.0	.0	.0	.4	.0	.4	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.2	3.1	10.1	2.8	1.2	.0	18.4	.7	6.9	25.7	4.8	.1	.0	38.2	

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.0	1.2	.0	.0	.0	.0	1.2	.0	1.4	.0	.0	.0	.0	1.4		
1-2	.0	7.1	1.4	.0	.0	.0	8.5	.0	2.6	.6	.0	.0	.0	3.2		
3-4	.0	1.0	4.8	.4	.0	.0	6.1	.0	1.5	.9	.0	.0	.0	2.4		
5-6	.0	.4	4.2	.7	.0	.0	5.2	.0	.4	.5	.0	.0	.0	.9		
7	.0	.0	1.6	1.3	.0	.0	2.9	.0	.0	.4	.0	.0	.0	.4		
8-9	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.4	.0	.0	.7		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.4		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.0	9.7	12.3	2.4	.0	.0	24.4	.0	5.9	2.8	.7	.0	.0	9.3	98.6	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	2.1	4.3	.4	.0	.0	.0	6.8	
1-2	.7	17.4	6.8	.0	.0	.0	24.9	
3-4	.7	5.7	21.0	.4	.0	.0	27.8	
5-6	.0	1.4	14.6	3.2	.0	.0	19.2	
7	.0	.0	8.2	4.3	.0	.0	12.5	
8-9	.0	.0	.7	2.1	1.1	.0	3.9	
10-11	.0	.0	2.5	1.4	.0	.0	3.9	
12	.0	.0	.0	.0	.4	.0	.4	
13-16	.0	.0	.0	.0	.7	.0	.7	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.6	28.6	54.1	12.1	1.4	.0	100.0	281

PERIOD: (OVER-ALL) 1950-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
6-7	2.9	17.6	10.4	6.3	3.7	.6	.9	.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	150	3
6-7	.0	.0	3.7	9.2	5.5	.9	.3	.6	1.4	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	76	6
8-9	.0	.0	1.4	2.6	4.0	2.6	3.2	1.2	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	57	8
10-11	.0	.0	1.2	.3	.9	1.7	1.7	1.2	.9	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	29	9
12-13	.0	.0	.3	.0	.3	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	9
>13	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	16
INDEF	1.4	.6	.6	1.4	2.3	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27	5
TOTAL	15	63	61	69	58	75	21	15	14	4	2	0	0	0	0	0	0	0	0	347	6
PCT	4.3	18.2	17.6	19.9	16.7	7.2	6.1	4.3	4.0	1.2	.6	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1855-1969

# FEBRUARY

AREA 0020 BARROW ISLAND  
19.95 114.9E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	9.5	.0	.0	.0	.0	.0	.0	9.5	.0	2.2	1.7	.0	.0	.0	86.6
NE	6.0	.6	.0	.0	.0	.0	.0	6.6	.0	2.4	.6	.0	.0	.0	90.4
E	11.8	3.6	.0	.0	.0	.0	.0	15.4	2.1	2.1	.0	.0	2.1	.0	78.5
SE	8.5	6.0	.0	.0	.0	.0	.0	14.5	.0	.0	.0	.0	2.0	.0	83.5
S	.0	.0	.0	.0	.0	.0	.0	1.2	.0	2.0	.0	.0	4.0	.0	92.8
SW	1.1	.1	.0	.0	.0	.0	.0	1.3	.0	1.4	.6	.0	5.1	.0	91.6
W	1.7	.0	.0	.0	.0	.0	.0	1.7	.0	3.4	.0	.0	3.4	.0	91.4
NW	4.9	5.9	.0	.0	.0	.0	.0	10.8	.0	3.9	.0	.0	5.9	.0	79.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.7	.0	91.3
TOT PCT	3.5	1.3	.0	.0	.0	.0	.0	4.9	.1	2.1	.3	.0	3.7	.0	88.9
TOT OBS:	677														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	3.6	2.0	.0	.0	.0	.0	.0	5.6	.0	.0	.3	.0	4.3	.0	89.7
06009	2.2	.0	.0	.0	.0	.0	.0	2.2	1.1	.0	.0	.0	5.6	.0	91.1
12015	4.0	1.5	.0	.0	.0	.0	.0	5.4	.0	5.0	.5	.0	4.0	.0	85.1
18021	3.3	.0	.0	.0	.0	.0	.0	3.3	.0	4.4	.0	.0	.0	.0	92.3
TOT PCT	3.5	1.3	.0	.0	.0	.0	.0	4.8	.1	2.0	.3	.0	3.8	.0	88.9
TOT OBS:	685														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.3	2.4	1.0	.2	.1	.0		4.9	8.4		3.9	7.2	4.9	7.5	6.0	.7	2.5	1.9
NE	.9	2.1	1.2	.5	.1	.0		4.8	10.6		4.2	5.8	3.4	4.8	3.7	5.8	.0	.0
E	.8	2.0	1.9	.5	.2	.0		5.4	12.8		6.2	6.9	5.2	3.8	5.4	1.9	4.7	3.8
SE	1.2	2.6	1.9	.5	.2	.0		6.4	11.3		8.3	6.4	11.5	3.1	3.7	3.4	7.4	7.1
S	1.2	7.5	10.1	2.2	.1	.0		21.0	12.6		24.1	16.3	24.5	19.9	17.1	26.5	22.3	29.5
SW	3.2	12.3	9.6	2.2	.3	.0		27.4	10.9		27.7	28.8	25.5	23.3	28.5	23.5	24.2	32.1
W	1.4	9.8	5.0	1.4	.1	.0		17.8	10.6		14.9	17.7	18.4	13.7	19.5	26.9	20.1	16.0
NW	1.1	5.5	2.3	.5	.0	.0		9.5	9.4		7.1	6.5	7.6	22.6	12.2	11.9	6.6	8.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.7							2.7	.0		3.5	4.3	1.0	1.4	1.1	1.5	6.6	1.3
TOT OBS	161	515	384	92	12	0	1164		10.7		256	234	96	73	269	67	91	78
TOT PCT	13.8	44.2	33.0	7.9	1.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	2.5	1.8	.5	.1	.0		4.9	8.4	5.5	6.1	5.0	2.2	
NE	1.8	2.1	.7	.2	.0		4.8	10.6	4.9	4.0	5.9	3.1	
E	1.6	2.3	1.1	.4	.0		5.4	12.8	6.5	4.6	4.7	4.3	
SE	2.3	2.5	1.2	.3	.1		6.4	11.3	7.4	7.8	3.6	7.2	
S	4.1	11.4	5.3	.2	.0		21.0	12.6	20.4	22.5	19.0	25.6	
SW	8.4	14.3	4.1	.3	.3		27.4	10.9	28.3	24.6	27.5	27.8	
W	5.8	8.4	3.1	.4	.0		17.8	10.6	16.3	15.2	21.0	18.2	
NW	3.7	4.5	1.2	.2	.0		9.5	9.4	6.8	14.1	12.1	7.4	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	2.7						2.7	.0	3.9	1.2	1.2	4.1	
TOT OBS	384	551	201	24	4	1164		10.7	490	169	336	169	
TOT PCT	33.0	47.3	17.3	2.1	.3		100.0		100.0	100.0	100.0	100.0	

FEBRUARY

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1855-1969AREA 0020 BARRON ISLAND  
19.95 114.5F

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00603	3.9	16.4	42.2	29.6	6.9	.4	.0	9.7	100.0	490
06009	1.2	4.7	42.6	40.8	9.5	1.2	.0	11.9	100.0	169
12015	1.2	7.7	46.8	31.5	8.9	1.8	.0	11.5	100.0	336
18021	4.1	7.1	42.6	37.9	7.1	1.2	.0	11.2	100.0	169
TOT	32	129	515	384	92	12	0	10.7		1164
PCT	2.7	11.1	44.2	33.0	7.9	1.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.2	1.0	.8	.4		3.0
NE	2.3	1.3	2.8	.9		4.5
E	2.3	1.0	3.6	1.4		5.0
SE	3.0	1.3	2.3	1.4		4.0
S	9.4	3.9	3.8	.6		2.6
SW	13.4	5.7	2.7	1.3		2.4
W	9.9	3.6	3.8	.9		2.8
NW	2.7	2.4	2.0	1.2		3.9
VAR	.0	.0	.0	.0		.0
CALM	3.5	.3	.3	.0		1.7
TOT OBS	153	64	69	25	311	3.1
TOT PCT	49.2	20.6	22.2	8.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999			OBS
N	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	3.8	
NE	.0	.0	.0	.4	1.2	1.0	.6	.0	.0	.0	4.0	
E	.0	.0	.0	1.4	.6	2.2	.0	.0	.0	.0	4.1	
SE	.0	.0	.0	2.0	.6	.4	.0	.0	.0	.0	5.5	
S	.0	.0	.0	.6	.3	.9	.6	.0	.3	.3	14.7	
SW	.0	.0	.0	.6	1.0	.1	.4	.0	.0	.0	21.1	
W	.0	.0	.0	.5	1.3	.0	.5	.0	.0	.0	15.9	
NW	.0	.0	.0	.8	.3	.2	.0	.3	.0	.0	6.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.2	
TOT OBS	0	0	0	17	20	15	7	0	2	1	249	311
TOT PCT	.0	.0	.0	5.5	6.4	4.8	2.3	.0	.6	.3	80.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>OR >6500	.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0
>OR >4000	.6	1.0	1.0	1.0	1.0	1.0	1.0	1.0
>OR >3500	2.5	3.2	3.2	3.2	3.2	3.2	3.2	3.2
>OR >2000	6.4	7.6	8.0	8.0	8.0	8.0	8.0	8.0
>OR >1000	9.9	13.1	14.3	14.3	14.3	14.3	14.3	14.3
>OR >600	13.7	17.5	19.7	19.7	19.7	19.7	19.7	19.7
>OR >300	13.7	17.5	19.7	19.7	19.7	19.7	19.7	19.7
>OR >150	13.7	17.5	19.7	19.7	19.7	19.7	19.7	19.7
>OR >0	13.7	17.5	19.7	19.7	19.7	19.7	19.7	19.7
TOTAL	43	55	62	62	62	62	62	62

TOTAL NUMBER OF OBS: 314

PCT FREQ NH &lt;5/8: 80.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	21.0	25.3	17.1	10.1	6.1	6.7	3.0	5.8	4.9	.0	328

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1855-1969

FEBRUARY

AREA 0090 BARROW ISLAND  
19.95 114.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1	
	TOT %	.0	.0	.0	.1	.0	.0	.0	.1	.0	.0	.3	
1<2	PCP	.1	.2	.0	*	.1	.1	.0	.0	.0	.0	.6	
	NO PCP	.0	.0	.0	.0	.3	.4	.0	.3	.0	.0	1.0	
	TOT %	.1	.2	.0	*	.4	.6	.0	.3	.0	.0	1.6	
2<5	PCP	.3	*	.6	.1	.0	.0	.0	*	.0	.0	1.0	
	NO PCP	.1	.2	.1	.3	.8	1.1	.0	.2	.0	.1	3.0	
	TOT %	.4	.2	.7	.4	.8	1.1	.0	.2	.0	.1	4.0	
5<10	PCP	.1	.1	.1	.1	.0	.0	.3	.2	.0	.0	1.0	
	NO PCP	1.0	1.1	.9	2.0	4.8	4.8	3.7	1.8	.0	.4	20.7	
	TOT %	1.1	1.3	1.0	2.2	4.8	4.8	4.0	2.0	.0	.4	21.7	
10+	PCP	.1	*	.4	.6	.1	.2	.0	.6	.0	.0	2.1	
	NO PCP	4.7	4.4	5.1	4.0	12.4	19.3	13.2	4.3	.0	2.8	70.3	
	TOT %	4.9	4.5	5.5	4.6	12.5	19.5	13.2	4.8	.0	2.8	72.3	
TOT OBS													676
TOT PCT		6.5	6.1	7.2	7.4	18.5	26.1	17.2	7.5	.0	3.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.1	.1	.0	.1	.0	.0	.2	
	TOT %	.0	.0	.0	.1	.1	.1	.0	.1	.0	.1	.5	
1<2	0-3	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.2	
	4-10	.1	.1	.0	.0	.2	.3	.3	.4	.0	.0	1.4	
	11-21	.1	.2	.3	.3	1.7	.8	.5	.4	.0	.0	4.2	
	22+	.0	.1	.0	*	.6	.5	.2	.0	.0	.0	1.4	
	TOT %	.2	.5	.2	.3	2.5	1.7	1.0	.7	.0	.0	7.2	
2<5	0-3	.1	.0	.0	.0	.0	.2	.0	*	.0	.1	.4	
	4-10	.0	*	.1	.1	.5	.6	.1	.1	.0	.0	1.4	
	11-21	.1	*	.2	.1	.1	.1	.0	*	.0	.0	.7	
	22+	.1	.1	.2	.2	.1	.0	.0	.0	.0	.0	.8	
	TOT %	.3	.2	.5	.4	.7	.9	.1	.2	.0	.1	3.3	
5<10	0-3	.2	.1	.0	.2	.1	.6	.0	.2	.0	.8	2.3	
	4-10	.8	.6	.5	1.0	2.1	2.6	2.4	1.5	.0	.0	11.6	
	11-21	.1	.4	.3	.4	4.2	2.7	2.1	1.2	.0	.0	11.4	
	22+	.1	.2	.2	.4	1.4	.6	.2	*	.0	.0	3.1	
	TOT %	1.2	1.4	1.0	2.1	7.8	6.5	4.6	2.9	.0	.8	28.4	
10+	0-3	1.3	.7	.7	.8	1.2	2.3	1.3	.6	.0	2.1	11.0	
	4-10	1.9	1.9	1.6	1.2	4.4	8.7	6.5	3.0	.0	.0	29.2	
	11-21	.5	.7	1.7	1.6	4.7	5.8	2.7	.5	.0	.0	18.2	
	22+	.0	.2	.5	.2	.6	.4	.2	.0	.0	.0	2.2	
	TOT %	3.7	3.6	4.5	3.8	10.7	17.1	10.7	4.2	.0	2.1	60.6	
TOT OBS													913
TOT PCT		5.4	5.7	6.3	6.7	22.0	26.4	16.4	8.1	.0	3.1	100.0	



## FEBRUARY

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1855-1969

AREA 0020 BARRROW ISLAND  
19.95 114.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
07003	.0	.0	.0	6.6	2.6	2.6	2.6	.0	1.3	1.3	17.1	82.9	76
06009	.0	.0	.0	6.7	9.3	4.0	.0	.0	.0	.0	20.0	80.0	75
12015	.0	.0	.0	4.3	5.4	5.4	3.3	.0	.0	.0	18.5	81.5	92
18021	.0	.0	.0	3.8	7.5	6.3	2.5	.0	1.3	.0	21.3	78.8	80
TOT	0	0	0	17	20	15	7	0	2	1	62	261	323
PCT	.0	.0	.0	5.3	6.2	4.6	2.2	.0	.6	.3	19.2	80.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.5	5.0	1.8	26.1	66.5	379
06009	.0	.0	9.2	.8	26.9	63.1	130
12015	.0	.7	11.1	6.9	31.6	49.7	288
18021	.0	.7	5.8	1.5	30.7	61.3	137
TOT	0	5	71	30	267	561	934
PCT	.0	.5	7.6	3.2	28.6	60.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	8.0	9.3	82.7	75
06009	.0	.0	8.3	12.5	79.2	72
12015	.0	.0	6.8	13.6	79.5	88
18021	.0	.0	5.1	16.5	78.5	79
TOT	0	0	22	41	251	314
PCT	.0	.0	7.0	13.1	79.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.0	.4	.1	.3	.0	.0	6	.9
90/94	.0	.0	.3	1.3	.9	1.4	.1	.3	30	4.3
85/89	.0	.0	.4	2.3	3.3	11.0	8.0	1.4	185	26.5
80/84	.0	.0	.0	1.0	3.9	10.6	24.5	9.7	347	49.6
75/79	.0	.0	.0	.0	.4	4.6	7.6	4.6	170	17.2
70/74	.0	.0	.0	.0	.0	.4	.6	.4	10	1.4
65/69	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
TOTAL	0	0	5	35	60	199	285	115	699	100.0
PCT	.0	.0	.7	5.0	8.6	28.5	40.8	16.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.1	.1	.1	.1	.1	.0	.0	.0	.0	.3
.8	.7	.5	.2	.5	.6	.4	.3	.0	.3
2.8	2.5	1.5	.9	2.0	6.1	6.5	3.1	.0	1.1
2.3	1.8	3.7	4.1	9.5	11.8	9.6	5.2	.0	1.7
.4	.4	.4	1.0	7.9	5.4	.7	.7	.0	.1
.0	.0	.0	.1	1.1	.1	.1	.0	.0	.0
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
0.4	5.4	6.2	6.3	21.4	24.0	17.3	9.3	.0	3.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	95%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	96	95	90	83	76	74	68	83.5	489
06009	93	92	89	83	77	74	71	83.2	172
12015	95	92	88	82	77	75	72	82.4	339
18021	88	87	85	81	76	74	73	80.4	171
TOT	96	94	89	82	76	74	68	82.7	1171

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	10.8	11.1	30.0	32.4	15.7	77	285
06009	.0	1.0	11.3	40.2	41.2	6.2	79	97
12015	.0	3.5	6.1	24.6	46.5	19.3	82	228
18021	.0	.9	3.7	20.6	50.5	24.3	84	107
TOT	0	41	61	203	293	121	80	719

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1855-1969

# FEBRUARY

AREA 0020 BARROW ISLAND  
19.95 114.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	M FOG	NO FOG
14/16	.0	.0	.3	.0	.0	.0	1	.0	.3
11/13	.0	.0	.0	.6	.6	1.4	9	.0	2.6
7/8	.0	.0	.9	.3	.0	.0	6	.3	1.4
6	.0	.3	.3	.9	.0	.0	5	.0	1.4
5	.0	.3	.3	1.4	.0	.0	7	.0	2.0
4	.0	.3	2.9	2.6	.0	.0	20	.0	5.7
3	.0	.6	.6	3.1	.0	.0	15	.0	4.3
2	.0	1.1	3.7	2.9	.0	.0	27	.0	7.7
1	.3	1.7	5.7	4.0	.0	.0	41	.0	11.7
0	.3	3.7	10.9	2.9	.3	.0	63	.0	18.0
-1	.3	3.4	7.7	1.1	.0	.0	44	.3	12.3
-2	.9	2.9	7.7	.6	.0	.0	42	.0	12.0
-3	.3	2.6	4.0	.6	.0	.0	26	.0	7.4
-4	.0	3.1	3.7	.3	.0	.0	25	.0	7.1
-5	.3	1.4	1.4	.3	.0	.0	12	.0	3.4
-6	.0	.3	.3	.0	.0	.0	2	.0	.6
-7/-8	.6	.3	.6	.0	.0	.0	5	.0	1.4
TOTAL	10	77	178	75	5	5	350	2	348
PCT	2.9	22.0	50.9	21.4	1.4	1.4	100.0	.6	99.4

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.4	.0	.0	.0	.0	1.0	.0	.5	.0	.0	.0	.0	.5
1-2	.5	1.0	.0	.0	.0	.0	1.5	.0	2.9	.5	.0	.0	.0	3.4
3-4	.0	.0	.4	.0	.0	.0	.4	.0	.0	.7	.0	.0	.0	.7
5-6	.0	.5	.0	.0	.0	.0	.5	.0	.5	.3	.0	.0	.0	.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	.0	.0	1.1
8-9	.0	.0	.0	.0	.4	.0	.4	.0	.0	.0	.5	.0	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.5	.0	1.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	1.9	.4	.0	.4	.0	3.8	.0	3.9	2.0	1.6	.7	.0	8.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.8	.0	.0	.0	.8	.0	.0	1.4	.0	.0	.0	1.4
3-4	.0	.5	3.7	.0	.0	.0	4.2	.0	.0	1.2	.0	.0	.0	1.2
5-6	.0	1.0	2.4	.0	.0	.0	3.4	.0	.1	2.7	.0	.0	.0	2.9
7	.0	.0	.5	1.0	.0	.0	1.5	.0	.0	.5	1.8	.0	.0	2.3
8-9	.0	.0	.0	.5	.5	.0	1.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.4	.0	.4	.0	.0	.0	.5	.0	.0	.5
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.5	7.5	1.5	1.5	.0	12.0	.0	.1	5.8	2.3	.0	.0	8.3

PERIOD: (OVER-ALL) 1963-1969

FEBRUARY

TABLE 18 (CONT)

AREA 0020 BARROW ISLAND  
19.95 114.5E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.5	.0	.0	.0	.0	.5	.5	1.1	.0	.0	.0	.0	.0	1.6
1-2	.0	2.0	.4	.0	.0	.0	2.4	.0	4.6	.8	.0	.0	.0	.0	5.4
3-4	.0	1.5	3.5	.5	.0	.0	5.6	.0	1.9	7.9	.0	.0	.0	.0	9.8
5-6	.0	.4	4.3	.5	.0	.0	5.3	.0	.1	3.8	.5	.0	.0	.0	4.5
7	.0	.0	.4	.0	.0	.0	.4	.0	.0	1.8	.7	.0	.0	.0	2.4
8-9	.0	.0	1.5	.5	.0	.0	2.0	.0	.0	.1	.0	.0	.0	.0	.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.5	10.2	1.6	.0	.0	16.3	.5	7.7	14.4	1.2	.0	.0	.0	23.9

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.0	1.9	.0	.0	.0	.0	1.9	.5	1.0	.0	.0	.0	.0	.0	1.5	
1-2	.0	5.3	1.0	.0	.0	.0	6.3	.0	3.3	.0	.0	.0	.0	.0	3.3	
3-4	.0	2.6	1.1	.5	.0	.0	4.2	.0	1.6	.0	.0	.0	.0	.0	1.6	
5-6	.0	.5	1.6	.4	.0	.0	2.2	.0	1.1	.5	.0	.0	.0	.0	1.6	
7	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	10.3	3.7	1.0	.0	.0	14.9	.5	6.9	.5	.0	.1	.0	.0	8.2	95.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.5	5.4	.0	.0	.0	.0	11.9	
1-2	.5	13.9	4.9	.0	.0	.0	24.3	
3-4	.0	8.1	18.4	1.1	.0	.0	27.6	
5-6	.0	4.3	15.7	1.1	.0	.0	21.1	
7	.0	.0	3.8	4.3	.0	.0	8.1	
8-9	.0	.0	1.6	1.6	1.1	.0	4.3	
10-11	.0	.0	.0	.5	.5	.0	1.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.5	.0	.5	
17-19	.0	.0	.0	.5	.5	.0	1.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.0	36.8	44.3	9.2	2.7	.0	100.0	185

PERIOD: (OVER-ALL) 1960-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.1	9.9	11.7	2.7	3.6	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	72	3
6-7	.0	.9	5.8	10.8	4.9	1.8	.9	.9	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	61	6
8-9	.0	1.3	1.8	4.5	4.5	4.5	4.0	.0	1.3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	52	8
10-11	.0	.0	.0	1.3	1.8	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	7
12-13	.0	.0	.4	.9	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	7
>13	.0	.0	.0	.0	.4	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	9
INDET	2.2	.4	1.8	2.7	1.3	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	23	4
TOTAL	12	28	48	51	37	21	13	3	7	3	0	0	0	0	0	0	0	0	0	223	5
PCT	5.4	12.6	21.5	22.9	16.6	9.4	5.8	1.3	3.1	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1857-1969

MARCH

AREA 0020 BARROW ISLAND  
19.95 114.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	
N	2.5	13.7	.0	.0	.0	.0	.0	16.1	1.9	.0	.0	.0	.0	.0	82.0
NE	5.7	7.1	.0	.0	.0	.0	.0	12.8	.0	.0	.0	.0	.0	.0	84.4
E	2.6	5.3	4.6	.0	.0	.0	.0	12.6	2.6	2.6	.0	.0	.0	.0	82.1
SE	3.2	.0	4.0	.0	.0	.0	.0	7.2	.0	4.4	.0	.0	2.0	.0	88.0
S	.0	.0	.4	.0	.0	.0	.0	.4	.6	.7	.0	.0	4.2	.0	94.1
SW	.4	.8	.0	.0	.0	.0	.0	1.3	.8	2.7	.8	.0	3.0	.0	91.4
W	.7	.0	.0	.0	.0	.0	.0	.7	.0	1.1	.0	.0	2.2	.0	96.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	1.0	8.2	.0	.0	1.0	.0	89.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.2	.0	.0	.0	.0	.0	.0	4.2	.0	8.3	4.2	.0	4.2	.0	79.2
TOT PCT	1.4	1.9	.8	.0	.0	.0	.0	4.1	.7	2.4	.3	.0	2.5	.0	90.2
TOT OBS:	589														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	
00003	.9	2.7	.4	.0	.0	.0	.0	4.0	.4	.4	.4	.0	2.2	.0	92.9
06009	1.0	1.0	2.0	.0	.0	.0	.0	4.0	2.0	1.0	.0	.0	4.0	.0	90.1
12015	1.1	1.7	.6	.0	.0	.0	.0	3.4	.6	4.0	.0	.0	2.8	.0	89.3
18021	3.9	1.0	1.0	.0	.0	.0	.0	5.9	.0	5.9	1.0	.0	1.0	.0	86.3
TOT PCT	1.5	1.8	.8	.0	.0	.0	.0	4.1	.7	2.5	.3	.0	2.5	.0	90.3
TOT OBS:	606														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.7	2.5	1.8	.2	.4	.0		5.5	11.4		5.0	3.1	4.8	13.3	8.9	4.2	.6	3.5
NE	.9	2.3	1.2	.4	.1	.0		4.9	9.9		4.3	6.5	9.1	7.8	4.7	3.6	2.4	1.7
E	1.4	3.2	1.2	.5	.1	.0		6.4	8.9		7.2	8.8	8.8	5.5	4.0	6.0	6.9	4.1
SE	1.0	5.8	4.3	.8	.4	.0		12.4	11.6		19.4	15.2	11.6	8.6	6.3	9.2	11.4	11.5
S	1.9	14.5	9.7	2.1	.1	.0		28.2	10.9		32.7	32.0	21.0	15.6	29.1	25.9	26.2	29.1
SW	1.8	10.7	7.2	.5	.1	.0		20.2	9.9		16.7	19.5	19.3	16.4	21.8	26.2	22.3	22.7
W	1.7	6.5	4.4	.2	.0	.0		12.8	8.9		10.0	9.1	18.2	17.2	15.0	10.7	13.3	14.0
NW	1.2	3.4	1.5	.2	.2	.0		6.5	9.1		2.8	5.1	2.6	14.1	7.9	13.1	3.6	9.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.0							3.0	.0		1.8	.7	4.5	1.6	2.4	1.2	13.3	3.5
TOT OBS	134	481	309	48	12	0	984		9.9		229	151	88	64	208	84	83	85
TOT PCT	13.6	48.9	31.4	4.9	1.2	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	03	06	18
N	2.5	1.8	.7	.5	.1			5.5	11.4		4.2	8.4	7.5	2.1
NE	2.3	1.9	.4	.4	.0			4.9	9.9		5.2	8.6	4.4	2.1
E	3.3	2.1	.9	.1	.0			6.4	8.9		7.8	7.4	4.5	5.5
SE	3.6	6.3	1.8	.6	.1			12.4	11.6		17.7	10.4	7.1	11.5
S	8.5	13.9	5.3	.5	.0			28.2	10.9		32.4	18.8	28.2	27.7
SW	6.1	11.7	2.4	.1	.0			20.2	9.9		17.9	18.1	23.0	22.5
W	5.5	5.8	1.4	.1	.0			12.8	8.9		9.6	17.8	13.8	13.6
NW	3.4	2.4	.6	.0	.2			6.5	9.1		3.8	7.4	9.4	6.8
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	3.0							3.0	.0		1.3	3.3	2.1	8.3
TOT OBS	376	451	132	21	4	984			9.9		371	152	292	169
TOT PCT	38.2	45.8	13.4	2.1	.4			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1957-1969

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AREA 0020 BARROW ISLAND  
19.95 114.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00603	1.3	13.5	48.2	31.5	4.3	1.1	.0	10.0	100.0	371
06609	3.3	9.9	45.4	35.5	5.3	1.7	.0	10.0	100.0	152
12615	2.1	8.9	51.4	31.2	5.5	1.0	.0	10.0	100.0	292
18621	8.3	7.7	49.1	27.8	4.7	2.4	.0	9.6	100.0	169
TOT	3.0	10.6	48.9	31.4	4.9	1.2	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.3	.5	1.1	.4		2.2
NE	4.1	.1	1.0	.4		2.5
E	3.2	1.1	1.5	2.0		4.2
SE	7.2	1.7	2.5	2.5		3.3
S	17.8	3.9	1.0	.5		1.7
SW	11.7	2.0	4.1	.0		2.0
W	7.6	7.5	3.3	.4		2.7
NW	3.1	.4	1.0	.1		2.1
VAR	.0	.0	.0	.0		.0
(4LM)	4.5	.3	1.3	.0		1.7
TOT OBS	106	39	55	21	311	2.4
TOT PCT	63.0	12.5	17.7	6.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.8	.0	.3	.0	.0	.0	.0	4.9
NE	.0	.0	.0	.3	.3	.2	.0	.0	.0	.0	.0	4.8
E	.0	.0	.0	.3	1.1	1.1	.3	.0	.0	.0	.0	5.0
SE	.0	.0	.0	.3	.9	1.3	.0	.4	.0	.3	.0	10.7
S	.0	.0	.0	.0	.2	.6	.0	.2	.0	.5	.0	22.5
SW	.0	.0	.0	.3	1.4	.0	.0	.0	.0	.2	.0	15.7
W	.0	.0	.0	1.0	.6	.0	.0	.0	.0	.0	.0	12.4
NW	.0	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	3.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
(4LM)	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	.0	5.5
TOT OBS	0	1	6	17	14	2	2	0	4	265		311
TOT PCT	.0	.0	.3	1.9	5.5	4.5	.6	.6	.0	1.3	85.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50 YD	>0
>4500	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
>4000	1.3	1.3	1.9	1.9	1.9	1.9	1.9	1.9
>3500	1.9	1.9	2.5	2.5	2.5	2.5	2.5	2.5
>3000	5.3	6.3	6.9	6.9	6.9	6.9	6.9	6.9
>2000	10.4	11.9	12.6	12.6	12.6	12.6	12.6	12.6
>1000	11.6	14.2	15.1	15.1	15.1	15.1	15.1	15.1
>900	11.9	14.5	15.4	15.4	15.4	15.4	15.4	15.4
>800	11.9	14.5	15.4	15.4	15.4	15.4	15.4	15.4
>700	11.9	14.5	15.4	15.4	15.4	15.4	15.4	15.4
>600	11.9	14.5	15.4	15.4	15.4	15.4	15.4	15.4
>500	11.9	14.5	15.4	15.4	15.4	15.4	15.4	15.4
>400	11.9	14.5	15.4	15.4	15.4	15.4	15.4	15.4
>300	11.9	14.5	15.4	15.4	15.4	15.4	15.4	15.4
>200	11.9	14.5	15.4	15.4	15.4	15.4	15.4	15.4
>100	11.9	14.5	15.4	15.4	15.4	15.4	15.4	15.4
>0	11.9	14.5	15.4	15.4	15.4	15.4	15.4	15.4
TOTAL	38	46	49	49	49	49	49	49

TOTAL NUMBER OF OBS: 311

PCT FREQ NH <5/8: 84.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
31.9	27.7	13.4	6.7	3.3	4.0	3.3	3.3	6.4	.0	329



PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1857-1969

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AREA 0020 BARRON ISLAND  
19.95 114.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
2<5	PCP	.0	.2	.0	*	.1	.0	.0	.0	.0	.0	.0	.3
	NO PCP	.3	.2	.0	.2	.7	1.2	.4	.0	.0	.0	.3	3.1
	TOT %	.3	.4	.0	.3	.8	1.2	.4	.0	.0	.0	.3	3.4
5<10	PCP	1.1	.4	.5	.7	.0	.3	.1	.0	.0	.2	.3	3.2
	NO PCP	.9	1.1	1.0	1.2	4.9	2.8	1.6	.4	.0	.3	14.3	
	TOT %	2.0	1.5	1.5	1.9	4.9	3.1	1.7	.4	.0	.5	17.5	
10+	PCP	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.3
	NO PCP	4.5	3.9	4.6	8.4	24.3	15.8	9.7	3.7	.0	3.6	78.6	
	TOT %	4.5	3.9	4.9	8.4	24.3	15.8	9.7	3.7	.0	3.6	78.9	
TOT OBS													589
TOT PCT													6.8 6.0 6.4 10.6 30.0 20.1 11.8 4.2 .0 4.1 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.2
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.1	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	*	.0	.0	.1	.0	.0	.0	.0	.0	.0	.2
1<2	0-3	.0	.1	.0	.0	.0	.0	.1	.0	.0	.0	.0	.2
	4-10	.0	.1	.1	.0	.2	.4	.6	.1	.0	.0	.0	1.6
	11-21	.1	.0	.0	.0	.1	.2	.0	.1	.0	.0	.0	.5
	22+	.0	.0	.0	.7	.7	.1	.0	.0	.0	.0	.0	1.0
	TOT %	.1	.2	.1	.2	.9	.7	.7	.2	.0	.0	.0	3.2
2<5	0-3	.0	.0	.0	*	.1	.2	.1	.1	.0	.0	.0	.6
	4-10	.2	*	.0	.0	.2	.5	.1	.0	.0	.0	.0	1.1
	11-21	.0	.0	.0	.0	.2	*	.0	.0	.0	.0	.0	.2
	22+	.0	.2	.0	.1	.2	.2	.1	.0	.0	.0	.0	.8
	TOT %	.2	.3	.0	.2	.7	1.0	.3	.1	.0	.0	.0	2.8
5<10	0-3	.1	.1	.7	.4	.5	.5	.4	.4	.0	.4	.3	3.3
	4-10	.8	.9	.6	1.7	3.9	2.5	2.2	1.0	.0	.0	.0	13.6
	11-21	.7	.7	.2	1.0	2.9	2.8	1.9	.7	.0	.0	.0	10.8
	22+	.7	.3	.4	.5	.0	*	.1	.0	.0	.0	.0	1.9
	TOT %	2.3	2.0	1.9	3.5	7.3	5.7	4.5	2.1	.0	.4	.3	29.7
10+	0-3	.5	.6	.4	.4	1.0	1.0	1.4	.8	.0	2.6	.9	8.9
	4-10	1.6	1.4	.9	2.9	9.6	6.9	4.5	2.4	.0	.0	.0	31.2
	11-21	1.2	.7	.9	3.3	7.3	4.7	3.2	.5	.0	.0	.0	21.8
	22+	.0	*	.2	.1	1.2	.4	.0	.1	.0	.0	.0	2.0
	TOT %	3.3	2.8	3.5	6.7	19.1	12.9	9.2	3.8	.0	2.6	.3	63.9
TOT OBS													836
TOT PCT													6.0 5.3 5.5 10.7 28.1 20.4 14.7 6.3 .0 3.0 100.0

MARCH

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1857-1969AREA 0020 BARROW ISLAND  
19.95 114.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.0	.0	2.2	2.2	4.5	.0	1.1	.0	.0	10.1	89.9	89
06009	.0	.0	.0	1.4	4.1	4.1	1.4	.0	.0	1.4	12.3	87.7	73
12015	.0	.0	1.2	.0	7.3	6.1	1.2	.0	.0	1.2	17.1	82.9	82
18021	.0	.0	.0	6.4	5.0	2.6	.0	1.3	.0	2.5	21.8	78.2	78
TOT	0	0	1	8	18	14	2	2	0	4	49	273	322
PCT	.0	.0	.3	2.5	5.6	4.3	.6	.6	.0	1.2	15.2	84.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL
(GMT)							OBS
00003	.6	.3	3.2	2.2	27.1	66.6	314
06009	.0	.0	2.9	.7	24.6	71.7	138
12015	.0	.7	4.9	4.9	36.2	53.4	268
18021	.0	.0	1.4	1.4	30.6	66.7	147
TOT	2	3	29	23	261	549	867
PCT	.2	.3	3.3	2.7	30.1	63.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HR	<150	<600	<1000	1000+	NH <5/8 AND 5+	TOTAL
(GMT)	<50YD	<1	<5	AND 5+		OBS
00003	.0	.0	3.4	6.7	89.9	89
06009	.0	.0	1.4	11.0	87.7	73
12015	.0	1.3	1.3	16.3	82.5	80
18021	.0	.0	7.9	14.5	77.6	76
TOT	0	1	11	38	269	318
PCT	.0	.3	3.5	11.9	84.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL	PCT
									OBS	FREQ
00/94	.0	.0	.0	.4	1.3	.9	.0	.0	15	2.8
05/89	.0	.0	.6	2.1	6.1	10.6	6.6	1.5	145	27.5
10/84	.0	.2	.4	1.4	6.6	16.9	19.4	7.8	278	52.8
15/79	.0	.0	.0	.2	.9	7.4	4.7	3.0	86	16.3
20/74	.0	.0	.0	.0	.2	.0	.4	.0	3	.6
TOTAL	0	1	5	23	80	189	164	65	527	100.0
PCT	.0	.2	.9	4.4	15.2	35.9	31.1	12.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.4	.3	.3	.7	.4	.3	.4	.0	.0
1.7	2.0	2.2	3.6	4.1	3.8	7.6	1.9	.0	.6
2.8	3.0	3.5	6.8	10.2	11.1	9.1	4.4	.0	1.9
.7	.7	.7	2.1	7.9	4.0	.2	.0	.0	.0
.0	.0	.0	.2	.3	*	.0	.0	.0	.0
5.1	6.2	6.6	13.0	23.2	19.4	17.3	6.7	.0	2.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL
(GMT)									OBS
00003	04	91	89	83	77	75	72	83.2	358
06009	91	90	90	84	79	76	71	84.2	152
12015	91	90	86	82	78	75	72	82.4	287
18021	91	90	85	82	77	74	72	81.4	167
TOT	94	90	88	83	77	74	71	82.8	964

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL
(GMT)								OBS
00003	.0	8.5	16.0	35.6	27.7	12.2	76	188
06009	.0	5.2	19.8	41.7	22.9	10.4	75	96
12015	.0	3.0	13.1	35.1	35.1	13.7	79	168
18021	.0	2.9	10.6	31.7	40.4	14.4	80	104
TOT	0	20	82	199	175	71	78	556

## MARCH

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1857-1969

TABLE 17

AREA 0020 BARROW ISLAND  
19.95 114.6EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	TOT FOG	W FOG	NO FOG
14/16	.0	.0	.0	.0	.3	.0	1	.0	.3
11/13	.0	.0	.0	.3	.5	.0	3	.0	.8
9/10	.0	.0	.0	.3	.0	.0	1	.0	.3
7/8	.0	.3	.5	.3	.0	1.3	9	.0	2.4
6	.0	.0	.0	.3	.0	.5	3	.0	.8
5	.0	.0	.8	.8	1.8	.5	15	.0	3.9
4	.3	.0	.3	1.3	2.1	.8	18	.0	4.7
3	.0	.0	.0	1.6	3.7	.3	21	.0	5.5
2	.0	.0	1.6	2.1	2.9	.8	28	.0	7.3
1	.0	.0	1.6	5.0	3.9	.0	40	.0	10.5
0	.0	.0	1.3	9.2	5.5	.5	63	.0	16.5
-1	.0	.0	1.6	8.9	2.4	.0	49	.0	12.9
-2	.3	.0	2.9	10.0	2.1	.3	59	.3	15.2
-3	.0	.3	4.2	3.7	.3	.0	32	.0	8.4
-4	.0	.0	1.8	2.4	.0	.0	16	.0	4.2
-5	.0	.5	1.6	.8	.0	.0	11	.0	2.6
-6	.0	.3	.3	.5	.0	.0	4	.0	1.0
-7/-8	.0	.0	1.6	.0	.0	.0	6	.0	1.6
-9/-10	.0	.3	.3	.0	.0	.0	2	.0	.5
TOTAL	2	6	77	180	19	381	100.0	.3	99.7
PCT	1.5	1.6	20.2	47.2	25.5	5.0			

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.6	.0	.0	.0	.0	1.6	.1	.2	.0	.0	.0	.0	.4
1-2	.0	.5	.0	.0	.0	.0	.5	.0	1.5	.0	.0	.0	.0	1.5
3-4	.0	.5	1.0	.0	.0	.0	1.5	.0	1.1	1.0	.0	.0	.0	2.1
5-6	.0	.0	.5	.0	.0	.0	.5	.0	.0	1.0	.0	.0	.0	1.0
7	.0	.0	.5	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.5	.0	.0	.0	.5	.0	.0	.1	.5	.0	.0	.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	1.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.1
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.6	3.5	.0	.0	.0	6.1	.1	2.9	2.1	.5	.1	.0	5.7

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.4	.9	.0	.0	.0	.0	1.2	.0	1.2	.0	.0	.0	.0	1.5
1-2	.4	4.5	.0	.0	.0	.0	4.9	.1	4.5	1.6	.0	.0	.0	6.2
3-4	.0	.4	.5	.0	.0	.0	.9	.0	.7	3.1	.0	.0	.0	3.9
5-6	.0	.0	.5	.0	.0	.0	.5	.0	.0	1.0	.0	.0	.0	1.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.1	.5	.0	.0	.0	.6
8-9	.0	.0	.4	.5	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.5	.0	.0	.5	.0	.0	.0	.5	.0	.0	.5
13-16	.0	.0	.0	1.0	.4	.0	1.4	.0	.0	.0	.5	.5	.0	1.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.7	1.4	2.0	.4	.0	10.2	.1	6.8	6.2	1.0	.5	.0	14.7

PERIOD: (OVER-ALL) 1963-1969

MARCH

TABLE 18 (CONT)

AREA ONZO BARROW ISLAND  
19.95 114.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	2.5	.0	.0	.0	.0	2.9	.2	1.5	.0	.0	.0	.0	1.7
1-2	.5	5.5	.4	.0	.0	.0	6.3	.0	5.5	1.6	.0	.0	.0	7.1
3-4	.0	3.1	4.4	.0	.0	.0	7.5	.0	.2	1.5	.0	.0	.0	1.7
5-6	.0	.5	4.4	.5	.0	.0	5.3	.0	.0	4.1	.0	.0	.0	4.1
7	.0	.4	.9	.0	.0	.0	1.2	.0	.0	1.1	.0	.0	.0	1.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	11.9	10.0	.5	.0	.0	23.3	.2	7.2	8.3	.0	.0	.0	15.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.2	2.5	.0	.0	.0	.0	3.7	.1	.2	.0	.0	.0	.0	.4	
1-2	.0	2.9	1.1	.0	.0	.0	4.0	.0	1.6	.7	.0	.0	.0	2.4	
3-4	.0	2.4	3.0	.0	.0	.0	5.3	.0	.0	.0	.5	.0	.0	.5	
5-6	.0	.5	.5	.0	.0	.0	1.0	.0	.5	.0	.0	.0	.0	.5	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.2	8.2	4.6	.0	.0	.0	14.1	.1	2.4	.7	.5	.0	.0	3.7	93.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	10.2	10.7	.0	.0	.0	.0	21.0	085
1-2	1.0	25.9	5.4	.0	.0	.0	32.2	
3-4	.0	8.8	14.1	.5	.0	.0	23.4	
5-6	.0	1.5	11.7	.5	.0	.0	13.7	
7	.0	.5	2.9	.0	.0	.0	3.4	
8-9	.0	.0	1.0	1.0	.0	.0	2.0	
10-11	.0	.0	.0	1.0	.0	.0	2.0	
12	.0	.0	1.0	1.0	.0	.0	2.0	
13-16	.0	.0	.0	1.5	1.0	.0	2.4	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	11.2	47.3	36.1	4.4	1.0	.0	100.0	205

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.7	16.7	17.3	5.6	1.3	1.3	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	95
6-7	1.3	1.7	5.8	9.4	4.3	.9	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	58
8-9	.0	.0	1.3	6.4	4.7	2.1	.0	.4	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	39
10-11	.0	.0	.4	2.1	2.1	.4	.0	.9	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17
12-13	.0	.0	.4	2.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5
14-15	.0	.0	.0	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
16-17	4.7	.0	.0	1.3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17
18-19	25	43	45	64	33	11	.0	5	8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	234
TOT PCT	10.7	18.4	18.2	27.4	14.1	4.7	.0	2.1	3.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

APRIL

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1857-1969AREA 0020 BARROW ISLAND  
20.25 114.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	2.5	2.5	.0	.0	.0	.0	5.1	.0	2.5	.0	.0	.0	.0	92.4
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.0	98.6
SE	.9	1.8	.0	.0	.0	.0	.0	2.7	.0	.2	.0	.0	1.8	.0	95.3
S	.0	.3	.0	.0	.0	.0	.0	.3	.0	.4	.0	.0	.5	.0	98.8
SW	.0	.4	.8	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.8	.0	98.0
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	4.6	.0	.0	.0	.0	.0	95.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.2	.6	.3	.0	.0	.0	.0	1.1	.2	.3	.0	.0	.8	.0	97.6
TOT OBS:	626														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00003	.0	.4	.4	.0	.0	.0	.0	.8	.0	.0	.0	.0	.4	.0	98.8
06009	.0	.0	1.0	.0	.0	.0	.0	1.0	1.0	.0	.0	.0	1.0	.0	97.1
12015	.0	.5	.0	.0	.0	.0	.0	.5	.0	1.1	.0	.0	1.6	.0	96.8
18021	1.0	3.0	.0	.0	.0	.0	.0	4.0	.0	.0	.0	.0	.0	.0	96.0
TOT PCT	.2	.8	.3	.0	.0	.0	.0	1.3	.2	.3	.0	.0	.8	.0	97.5
TOT OBS:	639														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.3	1.8	.4	.1	.0	.0		3.7	6.1		1.4	3.6	3.2	6.1	4.7	5.6	2.9	3.8
NE	1.5	3.7	1.4	.2	*	.0		6.9	8.1		4.1	10.0	4.8	15.7	5.7	7.8	4.1	6.1
E	1.8	6.1	3.9	.1	1.1	.0		12.1	9.8		12.4	12.9	21.0	14.1	9.0	11.1	9.5	10.4
SE	2.3	10.8	5.7	.5	*	.0		19.3	9.4		22.5	25.6	14.5	12.1	14.8	15.0	17.2	28.5
S	2.0	13.8	11.4	.9	*	.0		28.0	10.8		36.9	27.4	32.7	19.2	23.7	21.1	29.6	27.6
SW	2.5	11.8	3.9	.2	.0	.0		18.5	8.2		16.3	13.1	14.4	15.2	26.6	18.3	22.1	15.1
W	.5	3.1	.9	.1	.0	.0		4.6	7.7		2.3	2.8	3.7	7.6	6.4	8.3	5.7	2.4
NW	1.0	1.9	.4	.0	.0	.0		3.3	6.4		1.3	.8	3.5	7.1	5.6	5.0	2.6	2.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.7							3.7	.0		2.8	3.9	2.1	2.0	3.4	7.8	5.7	3.8
TOT OBS	195	625	329	24	3	0	1176		8.9		254	180	94	99	266	90	87	105
TOT PCT	16.6	53.1	28.0	2.0	.3	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	2.6	.7	.3	.0	.0		3.7	6.1	2.3	4.7	4.9	3.4	
NE	3.5	2.8	.6	.0	*		6.9	8.1	6.0	10.4	6.3	5.4	
E	4.1	5.7	2.1	.1	*		12.1	9.8	12.6	17.5	9.6	10.0	
SE	6.7	10.1	2.4	*	.0		19.3	9.4	23.8	13.3	14.9	23.4	
S	7.5	13.2	5.3	.1	.0		28.0	10.8	32.9	25.8	23.0	28.5	
SW	7.9	9.1	1.4	*	.0		18.5	8.2	15.0	15.3	24.5	18.3	
W	2.6	1.6	.4	.0	.0		4.6	7.7	2.5	5.7	6.9	3.9	
NW	2.3	.8	.3	.0	.0		3.3	6.4	1.1	5.3	5.5	2.5	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	3.7						3.7	.0	3.2	2.1	4.5	4.7	
TOT OBS	481	541	150	3	1	1176		8.9	434	193	356	193	
TOT PCT	40.9	46.0	12.8	.3	.1		100.0		100.0	100.0	100.0	100.0	



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PERIOD: (PRIMARY) 1927-1969  
(OVER-ALL) 1857-1969AREA 0020 BARROW ISLAND  
20.25 114.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						4R+	MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47					
00003	3.2	18.4	50.0	26.5	1.6	.2	.0	.0	8.2	100.0	434
06009	2.1	6.7	49.2	38.9	2.6	.5	.0	.0	10.5	100.0	193
12015	4.5	9.8	61.8	22.8	1.1	.0	.0	.0	8.5	100.0	356
18021	4.7	12.4	48.2	30.1	4.1	.5	.0	.0	9.5	100.0	193
TOT	43	192	625	329	24	.3	.0	.0	8.9		1176
PCT	3.7	12.9	53.1	28.0	2.0	.3	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6	TOTAL OBS	MEAN CLOUD COVER
N	2.4	.3	.0	.0		.9
NE	3.5	.0	.9	.0		1.5
E	8.4	1.3	3.0	.0		2.3
SE	10.2	1.7	2.1	.4		2.0
S	19.6	4.5	6.0	1.8		2.4
SW	11.8	1.6	4.2	.4		2.3
W	3.3	1.0	1.1	.3		2.8
NW	2.1	1.0	1.8	.3		3.4
VAR	.0	.0	.7	.0		.0
CALM	2.8	.0	1.4	.3		2.5
TOT OBS	184	33	59	11	287	2.3
TOT PCT	64.1	11.5	20.6	3.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7
.0	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	3.5
.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	.0	12.2
.0	.0	.0	.0	.1	.3	.0	.3	.0	.0	.0	13.7
.0	.0	.0	1.0	1.9	1.3	.0	.3	.0	.0	.3	27.1
.0	.0	.0	.1	1.1	1.1	.0	.3	.0	.0	.1	15.8
.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	4.8
.0	.0	.0	.3	.0	.4	.0	.0	.0	.0	.0	4.5
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.7	3.5
.0	.0	.0	.5	12	12	.0	.2	.0	.4	252	287
.0	.0	.0	1.7	4.2	4.2	.0	.7	.0	1.4	87.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	# OR >10	# OR >5	# OR >2	# OR >1	# OR >1/2	# OR >1/4	# OR >50 YD	# OR >0
# OR >4500	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
# OR >4000	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
# OR >3500	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
# OR >3000	6.5	6.8	6.8	6.8	6.8	6.8	6.8	6.8
# OR >2500	9.6	10.6	10.9	10.9	10.9	10.9	10.9	10.9
# OR >2000	10.6	12.3	12.6	12.6	12.6	12.6	12.6	12.6
# OR >1500	10.6	12.3	12.6	12.6	12.6	12.6	12.6	12.6
# OR >1000	10.6	12.3	12.6	12.6	12.6	12.6	12.6	12.6
# OR >500	10.6	12.3	12.6	12.6	12.6	12.6	12.6	12.6
# OR >150	10.6	12.3	12.6	12.6	12.6	12.6	12.6	12.6
# OR >0	10.6	12.3	12.6	12.6	12.6	12.6	12.6	12.6
TOTAL	31	36	37	37	37	37	37	37

TOTAL NUMBER OF OBS: 293

PCT FREQ NH &lt;5/8: 87.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	DBSCD	TOTAL OBS
40.1	22.3	13.6	5.5	3.0	3.6	3.2	2.3	5.5	.0	309

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1857-1969

APRIL

AREA 0020 BARROW ISLAND  
20.25 114.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY														
VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0		
2<5	PCP	.0	.0	.0	.2	.0	.2	.0	.0	.0	.0	.0		
	NO PCP	.3	.0	.0	.6	.6	1.0	.2	.0	.0	.0	.0		
	TOT %	.3	.0	.0	.8	.6	1.2	.2	.0	.0	.0	.0		
5<10	PCP	.0	.2	.0	.0	.1	.1	.0	.0	.0	.0	.0		
	NO PCP	.8	1.4	2.3	3.8	5.1	3.8	1.6	1.2	.0	.0	.6		
	TOT %	.8	1.6	2.3	3.8	5.2	3.8	1.6	1.2	.0	.0	.6		
10+	PCP	.0	.2	.0	.3	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	1.9	4.6	8.8	12.7	24.9	14.5	3.3	2.3	.0	2.6	75.4		
	TOT %	1.9	4.7	8.8	13.0	24.9	14.5	3.3	2.3	.0	2.6	75.9		
TOT OBS														676
TOT PCT		3.0	6.3	11.1	17.7	30.6	19.5	5.0	3.5	.0	3.2	100.0		

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED WITH VARYING VALUES OF VISIBILITY														
VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.1	.0	.0	.3	.0	.0	.0	.0	.5		
	11-21	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.1		
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.2	.2	.0	.0	.3	.0	.0	.0	.0	.6		
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.1	.1	.0	.1	.1	.1	.0	.1	.5		
	4-10	.2	.0	.0	.4	.3	.9	.1	.1	.0	.0	2.0		
	11-21	.0	.1	.2	.0	.2	.4	.0	.0	.0	.0	.7		
	22+	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1		
	TOT %	.2	.1	.4	.5	.5	1.4	.2	.2	.0	.1	3.3		
2<5	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2		
	4-10	.0	.0	.0	.4	.1	.6	.1	.0	.0	.0	1.2		
	11-21	.0	.0	.0	.1	.3	.1	.0	.0	.0	.0	.5		
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1		
	TOT %	.2	.0	.0	.5	.5	.8	.1	.0	.0	.0	2.0		
5<10	0-3	.5	.8	.5	.9	1.0	1.0	.4	.5	.0	1.9	7.5		
	4-10	1.0	1.7	1.4	2.5	4.0	4.6	1.4	1.2	.0	.0	17.6		
	11-21	.5	1.0	1.1	1.9	3.7	2.2	.7	.2	.0	.0	11.2		
	22+	.1	.2	.0	.3	.4	.2	.1	.0	.0	.0	1.2		
	TOT %	2.0	3.8	3.0	5.6	9.1	7.9	2.6	1.8	.0	1.9	37.6		
10+	0-3	.9	.9	.9	1.0	1.0	1.6	.2	.7	.0	1.9	8.9		
	4-10	.9	2.4	4.4	6.4	9.0	6.7	2.1	1.0	.0	.0	33.0		
	11-21	.0	.5	1.2	2.3	7.6	1.8	.3	.3	.0	.0	14.0		
	22+	.0	.0	.0	.0	.5	.1	.0	.0	.0	.0	.6		
	TOT %	1.8	3.8	6.5	9.6	18.1	10.2	2.6	2.0	.0	1.9	56.5		
TOT OBS														998
TOT PCT		4.2	7.8	10.0	16.2	28.1	20.5	5.4	3.9	.0	3.9	100.0		

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1857-1969

APRIL

AREA 0020 BARROW ISLAND  
20.25 114.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY	TOTAL OBS
00003	.0	.0	.0	2.8	5.6	5.6	.0	.0	.0	2.8	10.7	83.3	72
06009	.0	.0	.0	1.3	5.3	5.3	.0	1.3	.0	.0	13.2	86.8	76
12015	.0	.0	.0	1.3	2.6	3.9	.0	1.3	.0	.0	9.1	90.9	77
18021	.0	.0	.0	1.3	2.6	3.9	.0	.0	.0	2.6	10.5	89.5	76
TOT	0	0	0	5	12	14	0	2	0	4	37	264	301
PCT	.0	.0	.0	1.7	4.0	4.7	.0	.7	.0	1.3	12.3	87.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.8	.0	2.1	.8	37.1	59.3	363
06009	.0	.0	1.3	.0	34.6	64.2	159
12015	.6	.0	7.4	4.3	42.0	45.7	324
18021	.6	.0	1.2	1.8	37.5	58.9	168
TOT	6	0	36	20	396	576	1034
PCT	.6	.0	3.5	1.9	38.3	55.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND+5+	NH <5/8 AND+5+	TOTAL OBS
00003	.0	.0	2.8	14.1	83.1	71
06009	.0	.0	1.3	12.0	86.7	75
12015	.0	.0	2.7	8.1	89.2	74
18021	.0	.0	4.1	8.2	87.7	73
TOT	0	0	8	31	254	293
PCT	.0	.0	2.7	10.6	86.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.3	.0	.0	.0	.4	.1	.0	6	.8
85/87	.0	.1	.3	3.1	4.6	6.2	2.7	.9	139	17.8
80/84	.0	.1	1.5	4.4	12.9	16.5	15.8	3.2	425	54.5
75/79	.0	.3	.8	1.9	3.7	7.8	5.8	3.3	184	23.6
70/74	.0	.0	.1	.4	.6	.9	.5	.5	21	2.7
65/69	.0	.0	.0	.1	.1	.3	.0	.0	5	.6
TOTAL	0	6	21	75	170	247	199	62	780	100.0
PCT	.0	.8	2.7	9.6	21.8	31.7	25.5	7.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.1	.3	.0	.1	.0	.1	.1	.0	.0	.0
85/87	1.5	1.6	2.1	1.9	3.2	4.2	1.3	1.1	.0	1.0
80/84	2.9	5.0	5.9	8.2	11.1	12.0	3.6	2.9	.0	2.9
75/79	.4	1.4	1.4	3.9	9.8	4.8	.7	.6	.0	.5
70/74	.0	.1	.2	.5	1.3	.5	.0	.1	.0	.0
65/69	.1	.0	.0	.3	.1	.1	.0	.0	.0	.0
TOTAL	5.0	8.4	9.6	14.8	25.5	21.8	5.7	4.7	.0	4.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	93	91	88	82	75	70	67	81.6	427
06009	91	89	88	83	75	73	68	82.7	185
12015	88	87	86	81	77	74	68	81.3	359
18021	86	85	84	80	75	72	72	80.0	192
TOT	93	89	87	81	75	70	67	81.4	1163

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	16.2	21.1	32.0	21.1	9.6	72	303
06009	.0	12.5	34.2	28.3	19.2	5.8	72	120
12015	.0	11.9	20.4	31.2	27.7	8.8	74	260
18021	.0	8.2	11.9	36.6	36.6	6.7	77	134
TOT	0	106	174	261	208	68	74	817

## APRIL

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1857-1969

AREA 0020 BARROW ISLAND  
20.25 114.6E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WD FOG
9/10	.0	.3	.0	.0	.0	.0	1	.0	.3
7/8	.0	.0	.0	1.1	.0	.6	6	.0	1.7
6	.0	.0	.0	.0	1.4	.6	7	.0	2.0
5	.0	.0	.0	.8	1.4	.0	8	.0	2.2
4	.0	.0	.3	.8	.6	.0	6	.0	1.7
3	.0	.0	.3	1.7	1.4	.0	12	.0	3.4
2	.0	.0	.3	3.6	3.1	.3	26	.0	7.3
1	.0	.0	.6	4.5	2.5	.0	27	.0	7.6
0	.6	.8	2.5	11.2	2.2	.0	62	.0	17.4
-1	.0	.3	2.2	10.9	1.1	.0	52	.0	14.6
-2	.0	.6	5.0	7.8	.3	.0	49	.0	13.7
-3	.0	1.4	4.2	5.0	.3	.0	39	.0	10.9
-4	.0	.6	6.7	1.7	.0	.0	32	.0	9.0
-5	.0	.3	3.6	.6	.0	.0	16	.0	4.5
-6	.0	.8	1.1	.6	.0	.0	9	.0	2.5
-7/-10	.0	.5	.6	.0	.0	.0	4	.0	1.1
-9/-10	.3	.0	.0	.0	.0	.0	1	.0	.3
TOTAL	3	20	98	180	51	5	357	0	357
PCT	.8	5.6	27.5	50.4	14.3	1.4	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.4	.0	.0	.0	.0	1.4	.0	1.6	.0	.0	.0	.0	.8
1-2	.0	.8	.0	.0	.0	.0	.8	.0	1.2	.0	.0	.0	.0	1.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	1.7	1.6	.0	.0	.0	3.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.5	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.2	.5	.0	.0	.0	2.7	.0	3.7	1.6	.0	.0	.0	5.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.4	.0	.0	.0	.0	.9	1.0	1.6	.0	.0	.0	.0	2.6
1-2	.0	5.5	.0	.0	.0	.0	5.5	.0	4.1	1.6	.0	.0	.0	5.6
3-4	.0	2.4	.4	.0	.0	.0	2.7	.0	2.9	.8	.0	.0	.0	3.7
5-6	.0	.5	1.4	.0	.0	.0	2.0	.0	.1	.4	.0	.0	.0	.5
7	.0	.4	1.0	.0	.0	.0	1.4	.0	.7	.3	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	9.2	2.9	.0	.0	.0	12.6	1.0	9.3	3.5	.0	.0	.0	13.9

PERIOD: (OVER-ALL) 1963-1969

APRIL

AREA 0020 BARROW ISLAND  
20.25 114.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.2	.0	.0	.0	.0	2.2	.1	.7	.0	.0	.0	.0	.8
1-2	.0	5.5	1.3	.0	.0	.0	6.8	.5	8.5	2.4	.0	.0	.0	11.4
3-4	.0	1.8	7.6	.0	.0	.0	9.4	.0	.7	.7	.0	.0	.0	1.3
5-6	.0	1.4	7.1	1.0	.0	.0	9.6	.0	.0	1.0	.0	.0	.0	1.0
7	.0	.0	3.5	.0	.0	.0	3.5	.0	.0	.4	.0	.0	.0	.4
8-9	.0	.0	.0	1.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	11.0	19.5	2.1	.0	.0	32.6	.7	9.8	4.5	.0	.0	.0	14.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.4	1.8	.0	.0	.0	.0	2.2	1.0	.0	.0	.0	.0	.0	1.0	
1-2	.0	.9	.0	.0	.0	.0	.9	.0	2.4	.0	.0	.0	.0	2.4	
3-4	.0	1.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	1.0	.9	.0	.0	.0	2.0	.0	.0	.7	.0	.0	.0	.7	
7	.0	.5	.5	.0	.0	.0	1.0	.0	.0	2.1	.0	.0	.0	2.1	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	5.4	1.4	.0	.0	.0	7.2	1.0	2.4	2.7	.0	.0	.0	6.2	95.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.2	8.7	.0	.0	.0	.0	16.9	
1-2	1.5	28.2	5.1	.0	.0	.0	34.9	
3-4	.5	10.3	10.8	.0	.0	.0	21.5	
5-6	.0	3.1	11.3	1.0	.0	.0	15.4	
7	.0	1.5	8.2	.0	.0	.0	9.7	
8-9	.0	.0	.0	1.0	.0	.0	1.0	
10-11	.0	.0	.5	.0	.0	.0	.5	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.3	51.8	35.9	2.1	.0	.0	100.0	195

PERIOD: (OVER-ALL) 1950-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.3	19.9	11.3	5.6	3.5	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	105	3
6-7	.0	.9	4.3	4.3	2.6	.4	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	6
8-9	.0	.4	2.2	.9	6.5	1.7	1.3	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	7
10-11	.0	.9	.4	.4	3.0	.9	2.2	.4	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	8
12-13	.0	.0	.4	.4	.0	.9	.4	3.0	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	10
>13	.0	.0	.0	.0	.0	.0	.0	.9	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	13
INDET	4.3	2.2	.4	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	2
TOTAL	20	56	44	27	39	16	10	13	4	2	0	0	0	0	0	0	0	0	0	231	5
PCT	8.7	24.2	19.0	11.7	16.9	6.9	4.3	5.6	1.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1925-1971  
(QVEX-ALL) 1857-1971

MAY

AREA 0020 BARROW ISLAND  
20.35 114.8E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGD W0 PCPN	FGD W0 PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7	.0	.0	.0	.0	96.3
NE	3.8	.0	.0	.0	.0	.0	.0	3.8	.0	1.9	.0	.0	.0	.0	94.4
E	.6	.0	.6	.0	.0	.0	.0	1.2	.0	.0	.3	.0	.0	.0	98.5
SE	.0	.6	.0	.0	.0	.0	.0	.6	1.2	.6	.3	.0	.0	.0	97.2
S	.3	.0	.0	.0	.0	.0	.0	.3	.0	1.0	.0	.0	.7	.0	98.3
SW	1.7	2.3	.0	.0	.0	.0	.0	4.0	.0	.6	.6	.0	.0	.0	95.4
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	.0	.0	.0	96.7
NW	.0	.0	.0	.0	.0	.0	.0	.0	6.7	.0	.0	.0	.0	.0	93.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.7	.4	.1	.0	.0	.0	.0	1.3	.4	.7	.3	.0	.1	.0	97.2
TOT OBS:	689														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGD W0 PCPN	FGD W0 PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00003	1.3	.0	.3	.0	.0	.0	.0	1.6	.6	.3	.3	.0	.0	.0	97.5
06009	.0	1.1	.0	.0	.0	.0	.0	1.1	1.1	.0	1.1	.0	1.1	.0	95.6
12015	.5	.5	.0	.0	.0	.0	.0	1.0	.0	1.5	.0	.0	.0	.0	97.5
18021	.0	1.1	.0	.0	.0	.0	.0	1.1	.0	1.1	.0	.0	.0	.0	97.7
TOT PCT	.7	.4	.1	.0	.0	.0	.0	1.3	.4	.7	.3	.0	.1	.0	97.3
TOT OBS:	696														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	1.7	2.0	.6	.0	.0	.0	4.3	5.5	7.5	4.5	.9	8.2	6.1	5.9	1.0	5.2		
NE	1.8	4.6	2.5	.3	.0	.0	9.2	9.1	5.6	9.6	6.7	23.3	12.5	9.6	3.9	3.7		
E	1.2	10.6	8.1	2.3	.2	.0	22.4	11.9	21.6	26.2	35.4	25.3	16.3	23.5	19.2	23.4		
SE	2.3	10.4	8.6	1.8	.3	.0	23.5	11.4	28.4	25.4	23.5	9.6	14.5	16.9	46.1	29.9		
S	2.6	10.4	6.6	.5	.0	.0	20.1	9.6	26.0	20.6	19.8	16.4	18.4	14.7	15.6	17.5		
SW	2.7	6.4	3.6	.1	.0	.0	12.7	8.1	11.9	10.4	7.3	11.0	18.5	16.2	6.5	11.7		
W	.6	1.7	.4	.0	.0	.0	2.7	6.1	1.4	.8	3.0	4.1	5.2	4.4	1.0	1.9		
NW	.7	1.8	.5	.0	.0	.0	3.0	6.5	1.6	.3	3.4	.7	6.2	4.4	.3	5.8		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	2.1						2.1	.0	1.1	2.2	.0	1.4	2.3	4.4	6.5	1.3		
TOT OBS	170	518	335	55	6	0	1084		9.7			261	183	82	73	263		
TOT PCT	15.7	47.8	30.9	5.1	.6	.0		100.0				100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	3.1	1.2	.0	.0	.0	.0	4.3	5.5	3.3	4.4	6.0	3.1	
NE	3.6	4.4	1.1	.0	.0		9.2	9.1	7.2	14.5	11.9	3.6	
E	6.2	10.2	5.2	.8	.0		22.4	11.9	23.5	30.6	17.7	21.3	
SE	7.7	9.1	6.2	.5	.0		23.5	11.4	27.1	16.9	15.0	38.0	
S	7.2	9.8	3.1	.0	.0		20.1	9.6	23.8	18.2	17.7	16.6	
SW	6.5	4.8	1.4	.0	.0		12.7	8.1	11.3	9.0	18.1	9.1	
W	2.1	.6	.1	.0	.0		2.7	6.1	1.2	3.5	5.1	1.5	
NW	1.8	1.1	.0	.0	.0		3.0	6.5	1.1	2.1	5.8	3.1	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	2.1						2.1	.0	1.6	.6	2.7	3.9	
TOT OBS	437	447	185	15	0	1084		9.7	444	155	331	154	
TOT PCT	40.3	41.2	17.1	1.4	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1925-1971  
(OVER-ALL) 1857-1971

MAY

AREA 0020 BARROW ISLAND  
20.35 114.8E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	1.6	18.0	48.4	25.7	6.1	.2	.0	.0	9.1	100.0	444
06009	.6	3.9	45.2	43.9	5.2	1.3	.0	.0	11.6	100.0	155
12015	2.7	17.2	47.7	29.0	3.0	.3	.0	.0	8.9	100.0	331
18021	3.9	2.6	48.8	37.0	6.5	1.3	.0	.0	11.5	100.0	154
TOT	23	147	518	335	55	.6	.0	.0	9.7		1084
PCT	2.1	13.6	47.8	30.9	5.1	.6	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.2	.4	.0	.0		1.5
NE	3.0	.9	.6	.4		2.6
E	16.1	4.0	5.0	.9		2.3
SE	19.8	2.5	6.3	2.0		2.4
S	12.6	3.4	5.0	.7		2.4
SW	6.2	.9	.5	.4		1.7
W	1.6	.4	.0	.0		1.0
NW	.9	.0	1.1	.0		3.7
VAR	.0	.0	.0	.0		.0
CALM	2.0	.0	.0	.4		1.2
TOT OBS	175	34	51	13	273	2.3
TOT PCT	64.1	12.5	18.7	4.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6
.0	.0	.0	.0	.3	.4	.0	.0	.0	.0	.0	4.3
.0	.0	.0	.0	1.9	.0	.0	.0	.3	2.1	21.8	
.0	.0	.4	1.8	1.5	.5	.0	.0	.1	1.2	25.2	
.0	.0	.0	.0	1.5	1.6	.0	.0	.0	.0	18.7	
.0	.0	.0	.0	.4	.5	.0	.0	.0	.0	7.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	
.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	1.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	2.6	
.0	.0	1	8	15	8	0	0	1	9	231	273
.0	.0	.4	2.9	5.5	2.9	.0	.0	.4	3.3	84.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CFILING (FEET)	VSBY (NM)				VSBY (NM)			
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>5000	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
>4000	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
>3000	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
>2000	6.6	6.6	6.6	6.6	6.6	6.6	6.6	6.6
>1000	11.3	11.7	11.7	12.0	12.0	12.0	12.0	12.0
>500	13.9	14.6	14.6	15.0	15.0	15.0	15.0	15.0
>300	13.9	15.0	15.0	15.3	15.3	15.3	15.3	15.3
>150	13.9	15.0	15.0	15.3	15.3	15.3	15.3	15.3
>0	13.9	15.0	15.0	15.3	15.3	15.3	15.3	15.3
TOTAL	38	41	41	42	42	42	42	42

TOTAL NUMBER OF OBS: 274

PCT FREQ NH <5/8: 84.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
40.2	21.6	9.5	7.1	6.8	4.7	2.4	4.1	3.7	.0	296

PERIOD: (PRIMARY) 1925-1971  
(OVER-ALL) 1857-1971

MAY

AREA 0020 BARROW ISLAND  
20.35 114.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	NO PCP	.0	.0	.1	.2	.0	.0	.0	.0	.0	.0	.3	.3
	TOT %	.0	.0	.1	.2	.0	.1	.0	.0	.0	.0	.4	.4
2<5	PCP	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1	.1
	NO PCP	.4	.2	.3	.4	.4	.8	.1	.1	.0	.0	2.6	2.6
	TOT %	.4	.2	.3	.4	.4	.9	.1	.1	.0	.0	2.8	2.8
5<10	PCP	.0	.1	.3	.1	.1	.2	.0	.0	.0	.0	.9	.9
	NO PCP	.4	1.8	6.9	3.6	2.8	2.5	.5	.5	.0	.4	19.4	19.4
	TOT %	.4	2.0	7.1	3.8	2.9	2.7	.5	.5	.0	.4	20.3	20.3
10+	PCP	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1
	NO PCP	3.2	5.4	16.7	19.2	17.6	9.0	1.6	1.5	.0	2.2	76.3	76.3
	TOT %	3.2	5.6	16.7	19.2	17.6	9.0	1.6	1.5	.0	2.2	76.5	76.5
TOT OBS													689
TOT PCT													4.0 7.7 24.2 23.5 20.9 12.7 2.2 2.2 .0 2.6 100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	TOT %	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
1<2	0-3	.1	.1	.1	.0	.0	.1	.0	.1	.0	.1	.6	.6
	4-10	.2	.2	.2	.2	.2	.3	.1	.2	.0	.0	1.6	1.6
	11-21	.0	.1	.3	.2	.0	.2	.0	.1	.0	.0	.9	.9
	22+	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.2
	TOT %	.3	.4	.6	.2	.6	.6	.1	.4	.0	.1	3.3	3.3
2<5	0-3	.3	.2	.0	.1	.1	.2	.0	.1	.0	.0	.8	.8
	4-10	.0	.1	.2	.3	.1	.4	.1	.0	.0	.0	1.1	1.1
	11-21	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.3	.1	.2	.5	.3	.6	.1	.1	.0	.0	2.1	2.1
5<10	0-3	.5	.8	.5	.4	.2	.9	.2	.3	.0	.6	4.3	4.3
	4-10	.9	2.2	4.1	2.8	4.1	2.7	.7	.8	.0	.0	18.2	18.2
	11-21	.2	1.3	3.6	2.6	2.5	2.2	.4	.3	.0	.0	13.1	13.1
	22+	.0	.2	.9	.2	.2	.1	.0	.0	.0	.0	1.4	1.4
	TOT %	1.5	4.5	9.0	6.0	7.0	5.7	1.3	1.4	.0	.6	37.0	37.0
10+	0-3	1.0	1.0	.6	2.0	2.5	1.7	.6	.3	.0	1.6	11.2	11.2
	4-10	1.0	2.4	6.8	7.6	6.0	3.4	.9	.8	.0	.0	28.8	28.8
	11-21	.5	.8	3.7	4.5	4.2	1.5	.0	.0	.0	.0	13.0	13.0
	22+	.0	.1	1.2	.9	.1	.1	.0	.0	.0	.0	2.3	2.3
	TOT %	2.4	4.2	12.2	14.9	12.7	6.7	1.5	1.1	.0	1.6	57.4	57.4
TOT OBS													999
TOT PCT													4.5 9.2 22.0 21.6 20.7 13.7 2.9 3.1 .0 2.3 100.0

MAY

PERIOD: (PRIMARY) 1925-1971  
(OVER-ALL) 1857-1971AREA 0020 BARROW ISLAND  
20.35 114.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
0000Z	.0	.0	.0	1.3	6.3	3.8	.0	.0	1.3	2.5	15.2	84.8	79
0600Z	.0	.0	.0	4.4	8.8	5.9	.0	.0	.0	5.9	25.0	75.0	68
1201Z	.0	.0	.0	2.7	4.0	.0	.0	.0	.0	1.3	8.0	92.0	75
1802Z	.0	.0	1.4	2.8	1.4	1.4	.0	.0	.0	2.8	9.7	90.3	72
TOT	0	0	1	8	15	8	0	0	1	9	42	252	294
PCT	.0	.0	.3	2.7	5.1	2.7	.0	.0	.3	3.1	14.3	85.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
0000Z	.0	.0	1.0	1.4	31.7	65.9	419
0600Z	.0	.0	5.0	.7	39.0	55.3	141
1201Z	.0	.3	6.5	4.3	44.7	44.1	322
1802Z	.0	.7	.7	.0	38.1	60.4	139
TOT	0	2	33	21	385	580	1021
PCT	.0	.2	3.2	2.1	37.7	56.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
0000Z	.0	.0	4.0	13.3	82.7	75
0600Z	.0	.0	4.6	21.5	73.8	65
1201Z	.0	.0	3.0	6.1	90.9	66
1802Z	.0	1.5	4.4	5.9	89.7	68
TOT	0	1	11	32	231	274
PCT	.0	.4	4.0	11.7	84.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.1	.0	.0	.0	.3	.0	.0	.0	3	.4
84/89	.0	.1	.1	.9	.6	.0	.0	.0	14	1.8
80/84	.1	.5	1.6	3.3	7.8	6.8	2.0	.4	175	22.5
76/79	.0	.4	3.5	7.5	10.7	15.6	6.5	3.6	381	47.8
70/74	.0	.1	2.5	3.0	6.4	4.4	4.0	1.8	177	22.2
65/69	.0	.0	.4	.4	.5	1.0	.9	1.0	33	4.1
60/64	.0	.0	.0	.1	.0	.4	.6	.0	9	1.1
55/59	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
TOTAL	2	9	65	121	209	225	112	54	797	100.0
PCT	.3	1.1	8.2	15.2	26.2	28.2	14.1	6.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	1.1	.3	.0	.0	.0	.0
.0	.0	.3	.8	1.1	.6	.0	.0	.0	.0
1.5	2.4	6.9	3.9	3.3	2.0	.8	1.0	.0	.6
3.1	5.3	10.8	8.6	7.6	6.3	1.9	2.6	.0	1.6
.3	.8	3.0	5.5	7.6	4.3	.4	.0	.0	.3
.0	.0	.8	1.0	1.5	.7	.1	.0	.0	.0
.0	.0	.0	.1	.4	.6	.0	.0	.0	.0
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
4.9	8.6	21.7	20.0	20.7	14.8	3.2	3.6	.0	2.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
0000Z	91	88	84	76	66	63	59	75.3	440
0600Z	90	89	86	80	74	72	71	79.5	154
1201Z	89	86	83	77	71	69	66	77.2	330
1802Z	84	83	82	77	70	65	61	76.7	156
TOT	91	88	84	77	70	64	59	77.1	1080

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
0000Z	.0	23.8	24.8	27.9	15.2	7.7	59	323
0600Z	.0	33.1	32.2	21.5	10.7	2.5	55	121
1201Z	.0	20.9	25.2	30.6	14.0	9.3	70	258
1802Z	.0	25.0	25.0	29.5	17.9	2.7	59	112
TOT	2	199	212	228	118	55	59	814

PERIOD: (PRIMARY) 1925-1971  
(OVER-ALL) 1857-1971

MAY

TABLE 17

AREA 0090 BARROW ISLAND  
20.35 114.8E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WD FOG
9/10	.0	.0	.0	.0	.0	.0	.3	.0	.6	3	.0	.9
7/8	.0	.0	.0	.0	.3	.3	.3	.0	.0	3	.0	.9
6	.0	.0	.0	.0	.3	.0	.0	.3	.0	2	.0	.6
5	.0	.0	.0	.0	.6	.6	.6	.3	.3	8	.0	2.4
4	.0	.0	.0	.0	.0	.0	.6	.9	.0	5	.0	1.5
3	.0	.0	.0	.0	.0	.9	1.5	.3	.0	9	.0	2.7
2	.0	.0	.0	.3	.3	2.1	3.3	.6	.0	22	.0	6.6
1	.0	.0	.0	.6	.3	2.4	3.9	1.2	.0	28	.0	8.4
0	.0	.0	.0	.6	1.8	4.5	7.2	.3	.0	48	.0	14.4
-1	.0	.0	.0	.3	1.8	5.4	6.0	.3	.0	46	.3	13.5
-2	.0	.0	.0	.3	1.2	6.0	3.6	.0	.0	37	.0	11.1
-3	.0	.0	.0	.3	4.2	5.4	.9	.0	.0	36	.3	10.5
-4	.0	.0	.0	.3	1.8	2.4	.3	.0	.0	16	.0	4.8
-5	.0	.0	.0	.3	3.6	1.2	.0	.0	.0	17	.0	5.1
-6	.0	.3	.0	.9	3.3	.3	.0	.0	.0	16	.0	4.8
-7/-8	.0	.3	.0	2.4	3.6	.9	.0	.0	.0	24	.0	7.2
-9/-10	.0	.0	.3	1.2	.9	.0	.0	.0	.0	8	.0	2.4
-11/-13	.3	.0	.0	.9	.3	.0	.0	.0	.0	5	.0	1.5
-14/-16	.0	.0	.3	.0	.0	.0	.0	.0	.0	1	.0	.3
TOTAL	1	2	2	81	95	3	3	3	3	334	2	332
PCT	.3	.6	.6	8.4	24.3	32.3	28.4	4.2	.9	100.0	.6	99.4

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.5	.5	.0	.0	.0	.0	1.1
1-2	.0	.8	.0	.0	.0	.0	.4	.0	2.0	.0	.0	.0	.0	2.0
3-4	.0	.0	.4	.0	.0	.0	.4	.0	1.1	.4	.0	.0	.0	1.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
7	.0	.5	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.4	.4	.0	.0	.0	1.8	.5	3.8	.9	.0	.0	.0	5.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	3.2	.0	.0	.0	.0	3.2	.0	2.2	.0	.0	.0	.0	2.2
1-2	.0	8.4	1.1	.0	.0	.0	9.5	.0	10.1	2.3	.0	.0	.0	12.4
3-4	.0	3.6	4.5	.5	.0	.0	8.6	.0	3.0	4.5	.5	.0	.0	8.0
5-6	.0	.4	3.6	.0	.0	.0	4.1	.0	.0	4.6	.5	.0	.0	5.1
7	.0	.0	.9	1.6	.0	.0	2.6	.0	.5	1.8	1.1	.0	.0	3.4
8-9	.0	.0	.0	.5	.0	.0	.5	.0	.0	.5	.0	.0	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	15.7	10.1	2.7	.0	.0	28.5	.0	15.8	13.6	2.2	.0	.0	31.6



PERIOD: (OVER-ALL) 1963-1971

MAY

AREA 0020 BARROW ISLAND  
20.35 114.88

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.5	2.5	.0	.0	.0	.0	3.1	.0	1.8	.5	.0	.0	.0	2.3	
1-2	.0	5.9	2.0	.0	.0	.0	8.0	.0	1.8	.0	.0	.0	.0	1.8	
3-4	.0	1.5	4.2	.0	.0	.0	5.7	.0	.5	.5	.0	.0	.0	1.1	
5-6	.0	.5	1.9	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	3.6	.0	.0	.0	3.6	.0	.0	.1	.0	.0	.0	.1	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	10.5	10.8	.0	.0	.0	21.9	.0	4.1	1.2	.0	.0	.0	5.3	

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.5	.5	.0	.0	.0	.0	1.1	.0	.5	.0	.0	.0	.0	.5		
1-2	.0	.5	.0	.0	.0	.0	.5	.0	.1	.0	.0	.0	.0	.1		
3-4	.5	.0	.0	.0	.0	.0	.5	.0	1.1	.1	.0	.0	.0	1.2		
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	1.1	1.1	.0	.0	.0	.0	2.2	.0	1.8	.1	.0	.0	.0	1.9	98.4	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	3.2	11.3	.5	.0	.0	.0	15.1	
1-2	.0	30.1	5.4	.0	.0	.0	35.5	
3-4	.5	10.8	14.5	1.1	.0	.0	26.9	
5-6	.0	1.1	9.1	.5	.0	.0	10.8	
7	.0	1.1	7.0	2.7	.0	.0	10.8	
8-9	.0	.0	.5	.5	.0	.0	1.1	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	3.8	54.3	37.1	4.8	.0	.0	100.0	186

PERIOD: (OVER-ALL) 1950-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.8	17.6	14.3	2.4	5.2	3.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100	3
6-7	.0	.5	9.0	4.8	3.8	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	40	5
8-9	.0	1.0	8.7	6.2	1.0	1.9	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	34	5
10-11	.0	.5	.5	1.9	1.9	2.4	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	6
12-13	.0	.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	6
>13	.0	.0	.0	1.0	.0	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	3
INDEX	1.9	1.4	.5	1.9	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	213	4
TOTAL	14	44	63	39	28	17	5	0	0	0	0	0	0	0	0	0	0	0	0	100.0	
PCT	6.7	21.0	30.0	18.6	13.3	8.1	2.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1859-1969

JUNE

AREA 0020 BARROW ISLAND  
20.15 114.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	URZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	NO DUST SIG WEA
N	10.7	1.8	.0	.0	.0	.0	.0	12.5	3.6	.0	.0	.0	.0	.0	83.9
NE	3.8	.0	.0	.0	.0	.0	.0	3.8	.0	.0	.0	.0	.0	.0	96.2
E	1.9	.0	.0	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	98.1
SE	2.3	.6	.0	.0	.0	.0	.0	2.9	.6	.0	.0	.0	.6	.0	95.9
S	2.1	.0	1.1	.0	.0	.0	.0	3.2	.0	.0	.0	.0	.0	.0	96.8
SW	2.7	.0	2.2	.0	.0	.0	.0	2.7	2.2	.0	2.2	.0	.0	.0	93.0
W	8.4	.0	.0	.0	.0	.0	.0	8.4	.0	2.4	.0	.0	.0	.0	89.2
NW	13.0	1.6	.0	.0	.0	.0	.0	14.6	.0	4.9	.0	.0	.0	.0	80.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	3.4	.3	.3	.0	.0	.0	.0	3.8	.5	.3	.2	.0	.2	.0	95.1
TOT OBS:	555														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG	NO DUST SIG WEA
00003	4.1	.0	.0	.0	.0	.0	.0	4.1	.3	.0	.0	.0	.3	.0	95.2
06009	1.3	.0	.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	98.7
12015	2.4	.5	1.0	.0	.0	.0	.0	3.4	.5	.0	.5	.0	.0	.0	95.7
18021	4.5	1.1	.0	.0	.0	.0	.0	5.7	1.1	2.3	.0	.0	.0	.0	90.9
TOT PCT	3.3	.3	.3	.0	.0	.0	.0	3.7	.4	.3	.1	.0	.1	.0	95.2
TOT OBS:	568														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.1	2.2	1.0	.1	.0	.0		3.5	8.8		2.3	2.6	8.3	1.8	5.5	1.1	3.3	2.5
NE	1.0	6.4	3.6	.2	.0	.0		11.2	9.7		9.1	13.0	12.7	11.8	13.5	6.3	16.7	5.0
E	1.2	9.4	11.3	2.0	.2	.0		24.0	12.6		23.1	29.2	29.6	25.9	18.7	25.9	22.0	23.5
SE	1.8	11.9	11.9	2.9	.3	.0		28.7	12.4		36.8	30.2	22.8	31.8	21.5	25.9	18.2	36.5
S	1.9	6.2	5.3	.8	.1	.0		14.4	10.9		14.8	11.3	15.4	11.2	15.2	13.8	18.5	16.5
SW	1.5	4.4	2.1	.3	.0	.0		8.3	8.9		7.3	6.7	3.1	10.6	9.2	13.2	9.8	9.5
W	.7	1.0	.7	.2	.0	.0		3.2	8.8		1.8	2.5	3.1	2.9	4.3	5.2	2.1	5.0
NW	.3	2.3	.7	*	.0	.0		3.4	7.9		3.0	3.2	3.7	2.9	5.2	2.9	2.4	1.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.3							3.3	.0		1.8	1.4	1.2	1.2	6.8	5.7	7.1	.0
TOT OBS	141	530	438	79	7	0	1195		10.9		272	220	81	85	266	87	84	100
TOT PCT	11.8	44.4	36.7	6.6	.6	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	1.4	1.8	.2	.0	.0		3.5	8.8	2.4	5.0	4.5	2.9	
NE	3.7	6.0	1.5	.0	.0		11.2	9.7	10.8	12.2	11.8	10.3	
E	4.5	12.5	6.5	.5	.0		24.0	12.6	25.8	27.7	20.5	22.8	
SE	6.2	14.4	7.2	.9	.0		28.7	12.4	33.8	27.4	22.6	28.1	
S	4.6	6.6	2.6	.5	.0		14.4	10.9	13.2	13.3	14.9	17.4	
SW	3.3	4.1	.6	.2	.0		8.3	8.9	7.0	6.9	10.2	9.6	
W	1.5	1.2	.5	*	.0		3.2	8.8	2.1	3.0	4.5	3.7	
NW	1.6	1.6	.1	.0	.0		3.4	7.9	3.1	3.3	4.6	1.9	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	3.3						3.3	.0	1.6	1.2	6.5	3.3	
TOT OBS	361	576	231	27	.0	1195		10.9	492	166	353	184	
TOT PCT	30.2	48.2	19.3	2.3	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1859-1969

JUNE

AREA 0020 BARROW ISLAND  
20.15 114.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
07003	1.6	8.7	44.3	36.8	8.1	.4	.0	.0	11.2	100.0	492
08009	1.2	3.6	44.0	44.6	6.0	.6	.0	.0	11.9	100.0	166
12015	6.5	13.0	44.2	30.9	4.5	.8	.0	.0	9.5	100.0	353
18021	3.3	3.8	45.1	40.2	7.1	.5	.0	.0	11.5	100.0	184
TOT	39	102	530	438	79	7	0	0	10.9		1195
PCT	3.3	8.5	44.4	36.7	6.6	.6	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.7	.7	1.1	1.1		3.8
NE	6.4	2.1	1.2	3.6		3.5
E	12.5	3.3	5.6	2.5		3.1
SE	14.3	3.9	5.2	2.1		2.7
S	10.4	1.4	1.3	2.5		2.5
SW	3.4	1.0	.6	.5		2.2
W	.7	.3	.4	.7		4.0
NW	1.2	1.1	.0	.8		3.4
VAR	.0	.0	.0	.0		.0
CALM	4.6	.4	.4	.0		1.2
TOT OBS	147	37	41	36	261	2.9
TOT PCT	56.3	14.2	15.7	13.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.4	1.1	.4	.0	.0	.0	.0	.0	3.7
NE	.0	.0	.0	.0	1.6	1.7	.4	.0	.0	.0	.4	9.3
E	.0	.0	.0	.0	2.5	2.1	.0	.3	.0	.0	.3	18.7
SE	.4	.0	.0	.5	1.3	2.3	.1	.1	.0	.0	.1	26.7
S	.0	.0	.0	.3	.7	1.8	.3	.0	.0	.0	.0	12.6
SW	.0	.0	.0	.0	.6	.1	.4	.0	.0	.0	.0	4.4
W	.0	.0	.0	.8	.3	.0	.0	.0	.0	.0	.0	1.0
NW	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	2.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	5.0
TOT OBS	1	0	0	7	22	22	3	1	0	2	203	261
TOT PCT	.4	.0	.0	2.7	8.4	8.4	1.1	.4	.0	.8	77.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.8	.8	.8	.8	.8	.8	.8	.8
>4000	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>3500	2.3	2.3	2.3	2.3	2.3	2.3	2.3	2.3
>3000	10.2	10.2	10.6	10.6	10.6	10.6	10.6	10.6
>2500	17.8	18.2	18.9	18.9	18.9	18.9	18.9	18.9
>2000	18.6	20.8	21.6	21.6	21.6	21.6	21.6	21.6
>1500	18.6	20.8	21.6	21.6	21.6	21.6	21.6	21.6
>1000	18.6	20.8	21.6	21.6	21.6	21.6	21.6	21.6
>500	18.6	20.8	21.6	21.6	21.6	21.6	21.6	21.6
>0	18.6	20.8	22.0	22.0	22.0	22.0	22.0	22.0
TOTAL	49	55	58	58	58	58	58	58

TOTAL NUMBER OF OBS: 264

PCT FREQ NH <5/8: 78.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	29.3	23.9	9.6	9.6	5.4	3.2	5.0	4.3	9.3	.4	280

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1859-1969

JUNE

AREA 0020 BARROW ISLAND  
20.15 114.06

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2		
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2		
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2		
2<5	PCP	.2	.0	.0	.5	.0	.0	.2	.0	.0	.0	.8		
	NO PCP	.0	.0	.3	.5	.3	.3	.0	.3	.0	.0	1.7		
	TOT %	.2	.0	.3	1.0	.3	.3	.2	.3	.0	.0	2.4		
5<10	PCP	.2	.3	.2	.2	.2	.0	.0	.5	.0	.0	1.5		
	NO PCP	1.1	2.6	5.1	4.5	1.7	.9	1.0	1.9	.0	.5	19.2		
	TOT %	1.3	2.9	5.2	4.7	1.8	.9	1.0	2.4	.0	.5	20.8		
10+	PCP	.2	.2	.3	.0	.3	.2	.1	.0	.0	.0	1.2		
	NO PCP	2.6	9.0	17.9	20.6	12.1	5.7	1.9	1.8	.0	3.7	75.3		
	TOT %	2.8	9.2	18.2	20.6	12.4	5.9	2.0	1.8	.0	3.7	76.5		
TOT OBS														655
TOT PCT		4.3	12.1	23.7	25.4	14.5	7.1	3.2	4.7	.0	4.1	100.0		

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS	
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	4-10	.0	*	*	.1	.0	.0	.0	.0	.0	.0	.2		
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1		
	TOT %	.0	*	*	.2	.0	.0	.0	.0	.0	.0	.3		
1/2<1	0-3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1		
	4-10	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1		
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.2		
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.2		
	4-10	.3	*	.0	.0	*	*	.0	.1	.0	.0	.6		
	11-21	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1		
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
	TOT %	.3	*	.0	.2	*	*	.0	.1	.0	.1	.9		
2<5	0-3	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.1		
	4-10	.0	.0	.2	.2	.2	.1	.0	.1	.0	.0	.8		
	11-21	.1	.1	.0	.2	*	*	.1	.1	.0	.0	.7		
	22+	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2		
	TOT %	.1	.1	.2	.6	.2	.2	.1	.2	.0	.0	1.8		
5<10	0-3	.1	.5	.5	.3	.4	.5	.5	.3	.0	.8	3.9		
	4-10	1.0	2.6	4.0	3.6	1.8	1.8	.5	1.2	.0	.0	16.5		
	11-21	.2	1.6	3.8	5.3	2.0	1.2	.2	.4	.0	.0	14.8		
	22+	.0	*	.9	2.1	.6	.4	.2	.0	.0	.0	.4		
	TOT %	1.3	4.7	9.2	11.4	4.8	4.0	1.5	1.9	.0	.8	39.6		
10+	0-3	.1	.4	.6	1.3	1.7	.9	.3	.1	.0	2.5	7.9		
	4-10	1.0	4.1	5.4	8.4	4.3	2.7	1.2	1.0	.0	.0	28.0		
	11-21	.8	2.1	6.3	5.3	3.2	.8	.3	.1	.0	.0	19.1		
	22+	.1	.1	1.2	.6	.2	.0	.0	.0	.0	.0	2.3		
	TOT %	2.0	6.8	13.5	15.6	9.5	4.4	1.8	1.3	.0	2.5	57.3		
TOT OBS														1013
TOT PCT		3.8	11.8	23.0	28.0	14.6	8.7	3.3	3.5	.0	3.4	100.0		

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1859-1969

JUNE

AREA 0070 BARROW ISLAND  
20.15 114.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00603	1.4	.0	.0	1.4	6.8	10.8	1.4	1.4	.0	.0	23.0	77.0	74
06609	.0	.0	.0	3.3	5.0	11.7	.0	.0	.0	3.3	23.3	76.7	60
12615	.0	.0	.0	2.8	4.7	4.2	1.4	.0	.0	.0	18.1	81.9	72
18621	.0	.0	.0	2.9	10.0	5.7	1.4	.0	.0	.0	20.0	80.0	70
TOT	1	0	0	7	22	22	3	1	0	2	58	218	276
PCT	.4	.0	.0	2.5	8.0	8.0	1.1	.4	.0	.7	21.0	79.0	100.0

TABLE 11

PERCENT FREQUENCY VSRY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.7	.0	1.2	.7	28.4	69.0	429
06609	.0	.0	1.5	1.5	41.4	55.6	133
12615	.0	.6	1.2	4.0	55.4	38.8	327
18621	.0	.0	.0	.0	41.4	58.6	152
TOT	3	2	11	18	421	586	1041
PCT	.3	.2	1.1	1.7	40.4	56.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00603	1.5	1.5	2.9	22.1	75.0	68
06609	.0	.0	3.2	19.0	75.9	58
12615	.0	.0	5.8	14.5	79.7	69
18621	.0	.0	2.9	17.4	79.7	69
TOT	1	1	11	48	205	264
PCT	.4	.4	4.2	18.2	77.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.3	.1	.0	.1	.0	.0	.0	4	.5
80/84	.1	.0	.9	.9	.8	.5	.0	.4	28	3.8
75/79	.0	.7	2.0	6.6	6.4	7.9	4.1	1.6	216	29.3
70/74	.0	.1	3.8	8.5	11.0	7.3	5.4	2.3	284	38.5
65/69	.0	.3	.9	5.0	3.9	5.4	5.6	1.6	168	22.8
60/64	.0	.0	.1	.5	1.4	1.4	.8	.4	34	4.6
55/59	.0	.0	.0	.0	.0	.1	.0	.3	3	.4
TOTAL	1	10	59	160	174	167	117	49	737	100.0
PCT	.1	1.4	8.0	21.7	23.6	22.7	15.9	6.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.2	.2	.0	.1	.0	.0	.0	.0
.1	.6	1.3	.9	.2	.2	.1	.3	.0	.0
2.7	4.9	8.2	6.8	2.7	1.2	.6	1.5	.0	.8
.8	5.2	8.6	8.8	5.0	5.3	1.7	1.2	.0	2.0
.4	1.1	5.1	8.2	5.0	2.1	.2	*	.0	.5
.0	.0	.6	2.4	.7	.4	.1	.1	.0	.1
.0	.0	.0	*	.3	.1	.0	.0	.0	.0
4.0	11.8	24.0	27.3	14.0	9.4	2.8	3.1	.0	3.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	90	87	83	73	63	59	55	72.6	483
06609	86	85	82	75	68	64	64	75.0	168
12615	92	85	81	73	66	64	62	73.4	357
18621	81	79	78	72	64	62	61	72.2	184
TOT	92	86	82	73	65	61	55	73.1	1192

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.3	34.1	20.9	22.3	15.9	6.4	67	296
06609	.0	43.5	30.6	13.9	8.3	3.7	63	108
12615	.0	24.0	23.8	27.0	16.7	8.6	70	233
18621	.0	24.4	26.8	22.0	18.9	7.9	70	127
TOT	1	235	184	172	119	53	68	764



JUNE

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1859-1969

TABLE 17

AREA 0070 BARROW ISLAND  
20.15 114.6EPCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.0	.3	.0	1	.0	.3
9/10	.0	.0	.0	.0	.0	.3	.0	.0	1	.0	.3
7/8	.0	.0	.0	.0	.0	.0	.3	.0	1	.0	.3
6	.0	.0	.0	.0	.9	.0	.3	.6	6	.0	1.8
5	.0	.0	.0	.0	.0	.0	.9	1.2	7	.0	2.1
4	.0	.0	.0	.0	.3	.9	1.5	.3	10	.0	3.0
3	.0	.0	.0	.0	.0	.9	1.2	.3	8	.0	2.4
2	.0	.0	.0	.0	.6	3.8	2.1	.3	23	.0	6.8
1	.0	.0	.0	.4	.9	4.7	2.4	.3	31	.3	8.9
0	.0	.0	.0	.6	2.4	5.6	2.1	.3	37	.0	10.9
-1	.0	.3	.0	1.5	5.0	6.2	.3	.0	45	.0	13.3
-2	.0	.0	.0	.9	4.4	3.3	1.5	.0	34	.0	10.1
-3	.0	.0	.0	1.2	7.1	1.8	.0	.0	34	.0	10.1
-4	.3	.0	.6	1.5	3.6	2.1	.3	.0	28	.0	8.3
-5	.0	.0	.3	2.7	2.4	1.2	.0	.0	22	.0	6.5
-6	.0	.3	.3	1.8	2.1	.6	.0	.0	17	.0	5.0
-7/-8	.0	.3	1.2	3.3	.9	.0	.0	.0	19	.0	5.6
-9/-10	.3	.3	1.2	1.2	.0	.0	.0	.0	10	.0	3.0
-11/-12	.0	.0	.6	.0	.0	.0	.0	.0	2	.0	.6
-14/-16	.0	.6	.0	.0	.0	.0	.0	.0	2	.0	.6
TOTAL	2	6	14	52	103	106	44	11	338	1	337
PCT	.6	1.8	4.1	15.4	30.5	31.4	13.0	3.3	100.0	.3	99.7

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.7
1-2	.0	2.2	1.2	.0	.0	.0	3.3	.0	6.8	.0	.0	.0	.0	6.8
3-4	.0	1.2	1.3	.0	.0	.0	2.5	.0	.8	2.0	.0	.0	.0	2.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.7	.7	.0	.0	.0	1.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.2	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.3	2.5	.5	.0	.0	6.3	.7	8.3	2.7	.2	.0	.0	11.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.7	.0	.0	.0	.0	.7	.7	.2	.0	.0	.0	.0	.8
1-2	.0	4.7	3.7	.0	.0	.0	8.3	.0	8.2	3.7	.0	.0	.0	11.8
3-4	.0	3.2	3.3	.0	.0	.0	6.5	.0	.3	2.3	.0	.0	.0	2.7
5-6	.0	.0	1.2	.0	.0	.0	1.2	.0	.0	4.3	.7	.0	.0	5.0
7	.0	.0	.0	.7	.0	.0	.7	.0	.0	.7	.0	.0	.0	.7
8-9	.0	.0	1.2	.7	.0	.0	1.8	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.5	.0	.0	.5	.0	.0	.0	.2	.0	.0	.2
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	8.5	9.3	1.8	.0	.0	19.7	.7	8.7	11.2	.8	.0	.0	21.3

PERIOD: (OVER-ALL) 1963-1969

JUNE

AREA 0020 BARROW ISLAND  
20.15 114.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.3	2.3	.0	.0	.0	.0	3.7	.0	1.5	.0	.0	.0	.0	1.5
1-2	.0	7.3	1.3	.0	.0	.0	6.7	.0	1.7	.0	.0	.0	.0	1.7
3-4	.0	.5	4.5	.0	.0	.0	5.0	.0	.0	.5	.0	.0	.0	.5
5-6	.0	.7	2.8	.0	.0	.0	3.5	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.5	.0	.0	.0	.5	.0	.0	.8	.0	.0	.0	.8
8-9	.0	.7	.0	.0	.0	.0	.7	.0	1.3	.0	.0	.0	.0	1.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	11.5	9.2	.0	.0	.0	22.0	.0	4.2	1.7	.0	.0	.0	6.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.7	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.2	.0	.0	.0	.0	1.2	.0	.7	.2	.0	.0	.0	.8	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	1.3	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.7	.0	.0	.0	.7	.0	.0	1.3	.0	.0	.0	1.3	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.8	.7	.0	.0	.0	2.5	.0	2.0	1.5	.0	.0	.0	3.5	93.3

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.5	5.3	.0	.0	.0	.0	15.8	
1-2	.0	32.2	9.9	.0	.0	.0	42.1	
3-4	.0	7.2	13.8	.0	.0	.0	21.1	
5-6	.0	1.3	9.2	.7	.0	.0	11.2	
7	.0	.0	3.9	.7	.0	.0	4.6	
8-9	.0	2.0	1.3	1.3	.0	.0	4.6	
10-11	.0	.0	.0	.7	.0	.0	.7	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.5	48.0	38.2	3.3	.0	.0	100.0	152

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.7	11.7	17.0	3.2	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	69	3
6-7	.0	.5	6.5	8.0	5.9	2.1	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	49	5
8-9	.0	.0	2.7	2.7	8.0	5.3	2.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	43	7
10-11	.0	.0	1.1	1.1	.5	.0	.5	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	6
12-13	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	4
>13	.0	.0	.0	1.1	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	7
INDFT	4.8	.5	.5	1.1	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	2
TOTAL	16	24	56	32	34	14	7	3	0	0	0	0	0	0	0	0	0	0	0	188	4
PCT	8.5	12.8	30.9	17.0	18.1	7.4	3.7	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

JULY

PERIOD: (PRIMARY) 1893-1969  
(OVER-ALL) 1859-1969AREA 0020 BARROW ISLAND  
19.95 114.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	.0	4.1	.0	.0	.0	.0	.0	4.1	.0	.0	.0	.0	.0	.0	95.9
NE	.0	.5	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	5.2	.0	94.3
E	.0	.0	.7	.0	.0	.0	.0	.7	.0	.0	1.0	.0	4.0	.0	94.4
SE	.0	.7	.8	.0	.0	.0	.0	1.6	.6	.0	.9	.0	.6	.0	96.2
S	1.1	.8	.8	.0	.0	.0	.0	2.7	.0	.0	.0	.0	1.3	.0	96.0
SW	4.1	.0	.0	.0	.0	.0	.0	4.1	.0	.0	.0	.0	.0	.0	95.9
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.6	.0	94.4
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.7	.0	95.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.5	.0	.0	.0	.0	.0	.0	4.5	.0	.0	.0	.0	4.5	.0	90.9
TOT PCT	.9	.4	.5	.0	.0	.0	.0	1.8	.2	.0	.5	.0	2.3	.0	95.2
TOT OBS:	566														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00003	1.0	.5	.5	.0	.0	.0	.0	2.0	.5	.0	.0	.0	1.0	.0	96.5
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	5.9	.0	93.1
12015	2.4	.0	.6	.0	.0	.0	.0	3.0	.0	.0	.6	.0	2.4	.0	94.0
18021	.0	1.0	1.0	.0	.0	.0	.0	2.0	.0	.0	1.0	.0	1.0	.0	96.0
TOT PCT	1.1	.4	.5	.0	.0	.0	.0	1.9	.2	.0	.5	.0	2.3	.0	95.1
TOT OBS:	570														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	.4	1.8	.8	.0	.0	.0	3.1	7.7	3.1	3.9	1.3	3.3	3.5	4.8	2.2	2.5		
NE	.8	5.5	3.6	.3	.0	.0	10.2	9.6	4.5	9.1	17.1	16.7	14.7	6.3	8.5	7.0		
E	1.7	11.2	11.7	4.4	.4	.0	29.3	13.0	29.2	31.5	36.8	35.8	25.3	23.8	25.0	29.8		
SE	1.5	11.4	12.9	3.2	.3	.0	29.4	13.0	36.7	29.5	20.7	27.0	23.0	26.7	34.4	34.5		
S	1.0	6.2	6.1	1.4	.0	.0	14.8	11.9	14.1	15.9	13.2	6.3	14.0	18.8	22.5	14.1		
SW	.9	4.0	1.7	.3	.0	.0	6.9	9.0	8.6	4.8	4.7	5.3	9.8	6.7	4.0	7.4		
W	.5	1.3	.4	.0	.0	.0	2.2	6.1	1.2	2.8	.0	.4	3.3	8.2	.7	1.9		
NW	.5	.8	.1	.0	.0	.0	1.3	5.5	.4	2.0	1.1	1.6	2.0	2.9	.0	1.1		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	2.6						2.6	.0	2.3	.6	5.1	1.6	4.4	1.9	2.7	1.5		
TOT OBS	130	539	479	122	8	0	1278		259	178	117	123	250	104	112	135		
TOT PCT	10.2	42.2	37.5	9.5	.6	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	1.7	1.2	.3	.0	.0		3.1	7.7	3.4	2.3	3.9	2.4		
NE	3.2	6.3	.6	.1	.0		10.2	9.6	6.4	16.9	12.2	7.7		
E	7.0	13.7	7.2	1.3	.0		29.3	13.0	30.1	36.3	24.9	27.6		
SE	5.6	14.3	8.5	1.0	.0		29.4	13.0	33.8	24.0	24.1	34.5		
S	3.1	7.7	4.0	.0	.0		14.8	11.9	14.8	10.7	15.4	17.9		
SW	2.6	3.7	.7	.0	.0		6.9	9.0	7.0	5.0	8.9	5.9		
W	1.6	.6	.0	.0	.0		2.2	6.1	1.8	.2	4.7	1.3		
NW	.9	.4	.0	.0	.0		1.3	5.5	1.0	1.4	2.3	.6		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	2.6						2.6	.0	1.6	3.3	3.7	2.0		
TOT OBS	362	612	273	31	0	1278		11.4	437	240	354	247		
TOT PCT	28.3	47.9	21.4	2.4	.0		100.0		100.0	100.0	100.0	100.0		

JULY

PERIOD: (PRIMARY) 1857-1969  
(OVER-ALL) 1859-1969AREA 0020 BARROW ISLAND  
19.95 114.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT	TOTAL
HOUR								FREQ	FREQ	OBS
0000	1.6	8.7	39.1	39.8	10.1	.7	.0	11.9	100.0	437
0600	3.3	4.6	37.9	44.2	9.2	.8	.0	12.3	100.0	240
1200	3.7	9.9	48.6	30.2	7.1	.6	.0	10.0	100.0	354
1800	2.0	5.3	42.5	37.2	12.6	.4	.0	12.0	100.0	247
TOT	33	97	539	479	122	8	0	11.4		1278
PCT	2.6	7.6	42.2	37.5	9.5	.6	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6	TOTAL	MEAN
				OBS	OBS	CLOUD COVER
N	1.5	.2	.5	.0		2.0
NE	8.1	.5	.7	.4		1.1
E	23.7	1.8	1.9	1.2		1.2
SE	24.0	3.2	1.4	1.6		1.4
S	11.3	2.1	2.0	.5		1.6
SW	3.4	.6	2.7	.6		3.4
W	.5	.0	.0	.0		.0
NW	.6	.0	.1	.0		1.2
VAR	.0	.0	.0	.0		.0
CALM	4.1	.6	.0	.0		.7
TOT OBS	240	29	30	14	319	1.5
TOT PCT	77.1	9.1	9.4	4.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.2	.2	.0	.0	.0	.0	1.7	
NE	.0	.0	.0	.0	.3	.4	.0	.1	.0	.0	8.9	
E	.0	.0	.0	.0	1.3	.6	.3	.2	.0	.3	25.8	
SE	.0	.0	.1	.0	1.6	1.0	.3	.0	.0	.0	27.5	
S	.0	.0	.2	.0	.6	.2	.2	.0	.0	.0	14.7	
SW	.0	.0	.3	1.3	.9	.5	.0	.0	.0	.0	4.3	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	
NW	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.6	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.7	
TOT OBS	0	0	1	1	17	11	4	1	0	1	283	319
TOT PCT	.0	.0	.3	.3	5.3	3.4	1.3	.3	.0	.3	88.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

	CEILING (FEET)	OR >10	OR >5	OR >2	VSBY (NM) OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >4500	.3	.3	.3	.3	.3	.3	.3	.3	.3
OR >4000	.6	.6	.6	.6	.6	.6	.6	.6	.6
OR >3500	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
OR >3000	5.0	5.3	5.3	5.3	5.3	5.3	5.3	5.3	5.3
OR >2500	9.7	10.6	10.6	10.6	10.6	10.6	10.6	10.6	10.6
OR >2000	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9	10.9
OR >1500	10.9	10.9	10.9	11.3	11.3	11.3	11.3	11.3	11.3
OR >1000	10.9	10.9	10.9	11.3	11.3	11.3	11.3	11.3	11.3
OR >500	10.9	10.9	10.9	11.3	11.3	11.3	11.3	11.3	11.3
OR >0	10.9	10.9	10.9	11.3	11.3	11.3	11.3	11.3	11.3
TOTAL	32	35	35	36	36	36	36	36	36

TOTAL NUMBER OF OBS: 320

PCT FREQ NH &lt;5/8: 88.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL
											OBS
	54.9	15.0	8.9	4.9	3.7	1.2	4.3	3.4	3.7	.0	326

PERIOD: (PRIMARY) 1883-1969  
(OVER-ALL) 1859-1969

JULY

AREA 0070 BARROW ISLAND  
19.95 114.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.1	.1	.0	.1	.1	.0	.0	.4	
	TOT %	.0	.0	.0	.1	.2	.0	.1	.1	.0	.0	.5	
2<5	PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.4	
	NO PCP	.0	.2	.1	.2	.0	.0	.0	.0	.0	.0	.5	
	TOT %	.0	.2	.1	.2	.0	.2	.0	.0	.0	.2	.9	
5<10	PCP	.0	.0	.2	.2	.1	.2	.0	.0	.0	.0	.7	
	NO PCP	1.1	2.0	4.3	3.3	2.3	1.4	.7	.7	.0	.2	16.1	
	TOT %	1.1	2.0	4.5	3.5	2.5	1.6	.7	.7	.0	.2	16.8	
10+	PCP	.1	.1	.0	.2	.2	.0	.0	.0	.0	.0	.5	
	NO PCP	2.0	7.0	22.0	24.2	13.8	6.8	.8	1.1	.0	3.5	81.3	
	TOT %	2.1	7.1	22.0	24.3	14.0	6.8	.8	1.1	.0	3.5	81.8	
TOT OBS													
TOT PCT													
		3.2	9.3	26.6	28.2	16.7	8.6	1.6	1.9	.0	3.9	100.0	566

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.1	.1	.0	.1	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.1	.1	.0	.1	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.1	.0	.1	.1	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.1	.1	.0	.0	.0	.0	.0	.2	
1<2	0-3	.0	.0	.1	.0	.0	.0	.1	.1	.0	.0	.2	
	4-10	.1	.2	.1	.1	.1	.0	.0	.0	.0	.0	.5	
	11-21	.1	.3	.2	.1	.1	.0	.0	.0	.0	.0	.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.5	.3	.2	.1	.0	.1	.1	.0	.0	1.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.2	.1	.1	.0	.1	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.1	.1	.0	.1	.0	.0	.0	.1	.7	
5<10	0-3	.3	.5	.8	.4	.2	.4	.2	.2	.0	.4	3.5	
	4-10	1.0	3.6	4.0	4.1	2.5	1.4	1.3	.5	.0	.0	18.4	
	11-21	.6	1.4	3.2	2.9	2.7	1.1	.6	.1	.0	.0	12.6	
	22+	.0	.1	.9	.3	.2	.3	.0	.0	.0	.0	1.9	
	TOT %	1.9	5.6	9.0	7.7	5.7	3.2	2.2	.8	.0	.4	36.4	
10+	0-3	.6	.5	1.1	1.4	1.0	.8	.4	.3	.0	2.5	8.7	
	4-10	1.2	2.3	6.9	7.8	4.9	3.4	.4	.4	.0	.0	27.3	
	11-21	.3	2.2	7.4	7.5	2.9	.8	.0	.1	.0	.0	21.3	
	22+	.0	.2	1.6	1.1	.7	.1	.0	.0	.0	.0	3.8	
	TOT %	2.1	5.3	17.1	17.9	9.4	5.1	.8	.8	.0	2.5	61.1	
TOT OBS													
TOT PCT													
		4.1	11.8	26.4	26.0	15.3	8.4	3.1	1.7	.0	3.2	100.0	917



PERIOD: (PRIMARY) 1883-1969  
(OVER-ALL) 1859-1969

JULY

AREA 0020 BARROW ISLAND  
19.95 114.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <3/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <3/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	1.3	9.3	6.7	4.0	.0	.0	.0	21.3	78.7	75
06009	.0	.0	.0	.0	5.3	2.6	.0	.0	.0	.0	7.9	92.1	76
12015	.0	.0	.0	.0	3.4	2.3	.0	1.1	.0	.0	6.9	93.1	87
18021	.0	.0	1.2	.0	3.6	2.4	1.2	.0	.0	1.2	9.6	90.4	83
TOT	0	0	1	1	17	11	4	1	0	1	36	285	321
PCT	.0	.0	.3	.3	5.3	3.4	1.2	.3	.0	.3	11.2	88.8	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.3	.6	.0	.9	35.7	62.5	333
06009	.0	.0	4.3	.0	31.1	64.6	164
12015	.0	.0	1.1	1.1	47.9	50.0	280
18021	.6	.0	1.8	.0	32.7	64.9	171
TOT	2	2	13	6	360	565	948
PCT	.2	.2	1.4	.6	38.0	59.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <3/8 AND 5+	TOTAL OBS
00003	.0	.0	1.3	20.0	78.7	75
06009	.0	.0	.0	7.9	92.1	76
12015	.0	.0	.0	7.0	93.0	86
18021	.0	1.2	1.2	8.4	90.4	83
TOT	0	1	2	34	284	320
PCT	.0	.3	.6	10.6	88.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.2	.0	.0	.0	.0	1	.2
80/84	.0	.0	.0	.2	.5	.0	.2	.0	5	.8
75/79	.0	.3	.6	3.3	3.0	5.6	1.7	.2	97	14.7
70/74	.2	.6	5.2	11.4	13.0	7.0	6.4	2.3	303	45.9
65/69	.0	.3	2.6	7.0	8.3	6.1	3.6	2.0	197	29.8
60/64	.0	.0	.5	1.5	2.7	1.7	.9	.8	53	8.0
55/59	.0	.0	.0	.0	.3	.2	.0	.2	4	.6
TOTAL	1	8	59	155	184	135	84	35	660	100.0
PCT	.2	1.2	8.8	23.5	27.9	20.5	12.7	5.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
.0	.0	.3	.2	.2	.0	.2	.0	.0	.0
.4	2.4	4.6	3.4	1.1	.9	.6	.7	.0	.6
3.3	6.6	10.8	10.6	7.9	3.3	1.9	.5	.0	1.1
.5	3.2	6.9	8.4	4.5	3.1	1.4	.6	.0	1.2
.0	.2	2.3	3.3	1.1	1.0	.0	.2	.0	.0
.0	.0	.2	.3	.2	.0	.0	.0	.0	.0
4.2	12.3	24.9	26.2	15.0	8.4	4.1	1.9	.0	2.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	86	80	71	62	58	56	71.0	434
06009	86	83	79	73	68	64	62	73.3	233
12015	90	80	77	71	65	61	60	71.2	351
18021	81	78	76	70	63	58	58	70.2	233
TOT	90	84	78	71	64	60	56	71.3	1251

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	37.2	23.4	20.3	12.1	6.9	57	231
06009	.8	46.0	30.2	15.9	5.6	1.6	51	126
12015	.0	25.2	32.0	19.9	17.5	5.3	58	206
18021	.0	27.0	29.4	25.4	12.7	5.6	58	126
TOT	1	230	195	140	87	36	56	689

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PERIOD: (PRIMARY) 1883-1969  
(OVER-ALL) 1859-1969AREA 0020 BARROW ISLAND  
19.95 114.7E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WO FOG
14/16	.0	.0	.0	.0	.0	.0	.0	.0	.3	1	.0	.3
11/13	.0	.0	.0	.0	.0	.0	.0	.0	.6	2	.0	.6
9/10	.0	.0	.0	.0	.0	.3	.0	.3	.0	2	.0	.6
7/8	.0	.0	.0	.3	.6	.0	.9	.3	.0	7	.0	2.2
6	.0	.0	.0	.3	.6	.0	.6	.0	.0	5	.0	1.6
5	.0	.0	.0	.3	.0	.9	.6	.0	.0	6	.0	1.9
4	.0	.0	.3	.3	.0	.6	.3	.3	.0	6	.0	1.9
3	.0	.0	.3	.6	.6	.9	.0	.0	.0	8	.0	2.5
2	.0	.0	.3	.9	1.9	2.2	.6	.3	.0	20	.3	5.9
1	.0	.0	.9	1.9	2.2	.9	.0	.0	.0	19	.0	5.9
0	.0	.0	.0	1.9	6.2	2.8	.0	.0	.0	35	.6	10.2
-1	.0	.3	.3	1.6	5.0	1.6	.0	.0	.0	28	.0	8.7
-2	.0	.0	.9	5.0	2.8	2.2	.0	.0	.0	35	.0	10.9
-3	.0	.0	.9	6.8	3.1	.6	.0	.0	.0	37	.0	11.5
-4	.0	.0	1.9	6.5	2.5	.0	.0	.0	.0	35	.0	10.9
-5	.0	.3	.6	4.0	1.9	.0	.0	.0	.0	22	.0	6.8
-6	.0	.0	1.2	1.9	.6	.0	.0	.0	.0	12	.0	3.7
-7/-8	.0	1.2	3.1	2.2	.0	.0	.0	.0	.0	21	.0	6.5
-9/-10	.0	.9	1.9	.6	.0	.0	.0	.0	.0	11	.0	3.4
-11/-13	.0	1.6	.9	.3	.0	.0	.0	.0	.0	9	.0	2.8
-14/-16	.3	.0	.0	.0	.0	.0	.0	.0	.0	1	.0	.3
TOTAL	1	44	114	90	42	3.1	1.2	.9	322	100.0	.9	99.1
PCT	.3	4.3	13.7	35.4	28.0	13.0	3.1	1.2	.9	100.0	.9	99.1

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.4	.0	.0	.0	.8	.5	1.7	.1	.0	.0	.0	2.3
1-2	.0	1.8	.0	.0	.0	.0	1.8	.0	1.2	.6	.0	.0	.0	1.8
3-4	.0	.4	.0	.0	.0	.0	.4	.0	.8	.5	.0	.0	.0	1.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.1	1.4	.0	.0	.0	1.6
7	.0	.0	.4	.0	.0	.0	.4	.0	.0	.6	.1	.0	.0	.7
8-9	.0	.0	.4	.0	.0	.0	.4	.0	.0	.2	.0	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.6	1.1	.0	.0	.0	3.7	.5	3.8	3.5	.1	.0	.0	7.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.6	.0	.0	.0	.0	2.0	1.0	1.1	.0	.0	.0	.0	2.0
1-2	.0	3.0	1.6	.0	.0	.0	4.5	.0	5.3	1.2	.0	.0	.0	6.5
3-4	.0	3.2	7.9	.8	.0	.0	12.0	.0	3.1	6.8	.7	.0	.0	10.6
5-6	.0	.8	6.8	.5	.0	.0	8.1	.0	.0	5.7	1.0	.0	.0	6.7
7	.0	.0	1.9	1.3	.0	.0	3.2	.0	.0	1.4	.0	.0	.0	1.4
8-9	.0	.0	.4	.0	.0	.0	.4	.0	.0	1.0	.7	.0	.0	1.7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	8.6	18.5	2.6	.0	.0	30.3	1.0	9.4	16.1	2.9	.0	.0	29.4

PERIOD: (OVER-ALL) 1963-1969

JULY

AREA 0020: BARROW ISLAND  
19.95 114.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6
1-2	.0	4.1	1.0	.0	.0	.0	5.0	.0	3.2	.0	.0	.0	.0	.0	3.3
3-4	.0	2.5	1.9	.8	.0	.0	5.3	.0	1.4	.6	.5	.0	.0	.0	2.5
5-6	.0	1.0	.8	.5	.0	.0	2.3	.0	.0	.5	.5	.0	.0	.0	1.0
7	.0	.0	.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.5	.7	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	7.5	4.2	2.5	.0	.0	14.2	.0	5.4	1.1	1.0	.0	.0	.0	7.4

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.0	.4	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.5	.0	.0	.0	.0	.0	.5	.0	.0	.5	.0	.0	.0	.0	.5	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	.4	.0	.0	.0	.0	.8	.0	.5	.5	.0	.0	.0	.0	1.0	94.7

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.2	5.7	.5	.0	.0	.0	13.4	
1-2	.5	18.7	4.8	.0	.0	.0	23.9	
3-4	.0	11.5	17.7	2.9	.0	.0	32.1	
5-6	.0	1.9	15.3	2.4	.0	.0	19.6	
7	.0	.5	4.3	1.9	.0	.0	6.7	
8-9	.0	.0	2.4	1.4	.0	.0	3.8	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.5	.0	.0	.5	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.7	38.3	45.0	9.1	.0	.0	100.0	209

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.5	11.9	11.5	4.1	.4	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	80	3
6-7	.0	1.6	7.8	8.6	4.5	2.9	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	65	5
8-9	.0	.0	2.5	4.1	4.1	1.6	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	6
10-11	.0	.0	.4	2.9	2.1	2.1	.4	.8	.4	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	8
12-13	.0	.0	1.6	4.1	.4	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	5
>13	.0	.0	.0	2.1	.8	1.2	.8	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	8
INDFT	4.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	0
TOTAL	17	33	58	63	30	27	3	7	3	2	0	0	0	0	0	0	0	0	0	243	5
PCT	7.0	13.6	23.9	25.9	12.3	11.1	1.2	2.9	1.2	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1877-1971  
(OVER-ALL) 1860-1971

AUGUST

AREA 0020 BARRON ISLAND  
19.85 114.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
NE	5.0	.0	.0	.0	.0	.0	.0	5.0	2.5	.0	.0	.0	2.5	.0	.0	89.9	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
SE	.7	.0	.0	.0	.0	.0	.7	1.4	.0	.4	.0	.0	.0	.0	.0	98.2	
S	.7	.0	.0	.0	.0	.0	.0	.7	.0	.3	.0	.0	.5	.0	.0	98.5	
SW	1.4	2.7	1.4	.0	.0	.0	.0	5.4	.0	2.7	.0	.0	.3	.0	.0	91.6	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.5	.0	.0	94.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	5.3	.0	.0	.0	.0	.0	.0	5.3	.0	.0	.0	.0	5.3	.0	.0	89.5	
TOT PCT	1.1	.4	.2	.0	.0	.0	.2	1.8	.2	.5	.0	.0	.7	.0	.0	96.6	
TOT OBS:	559																

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA									
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA		
00003	2.1	.4	.4	.0	.0	.0	.0	3.0	.4	.0	.0	.0	.0	.0	.0	96.6	
06009	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	2.2	.0	.0	96.6	
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	1.3	.0	.0	98.1	
18021	1.2	1.2	.0	.0	.0	.0	.0	2.3	.0	3.5	.0	.0	.0	.0	.0	94.2	
TOT PCT	1.1	.4	.2	.0	.0	.0	.2	1.8	.2	.7	.0	.0	.7	.0	.0	96.7	
TOT OBS:	569																

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.7	2.0	.1	.0	.0	.0		2.7	5.3		3.1	2.6	3.9	3.8	3.4	.5	1.0	2.0
NE	1.2	3.0	1.3	.0	.0	.0		5.6	7.8		3.4	7.4	7.7	8.0	7.5	5.2	3.6	1.6
E	1.5	6.6	6.2	.9	.0	.0		15.1	11.2		15.7	18.1	18.0	20.3	12.7	12.6	12.2	12.0
SE	1.9	10.8	13.1	2.7	.0	.0		28.6	12.5		28.9	33.9	30.0	31.6	23.2	24.0	28.3	30.9
S	1.3	10.5	11.9	1.7	.0	.0		25.4	11.8		32.0	18.4	22.6	14.2	22.8	27.6	34.2	31.1
SW	1.9	6.2	3.8	.1	.0	.0		11.9	8.6		10.2	9.0	8.1	6.1	15.5	16.7	14.5	14.6
W	.5	3.2	.9	.0	.0	.0		4.6	7.8		2.0	1.8	4.6	11.8	7.1	6.2	1.0	4.7
NW	.8	2.0	.2	.0	.0	.0		3.0	5.8		2.4	4.2	3.3	3.3	3.6	3.3	2.0	1.6
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.0							3.0	.0		2.3	4.7	1.8	.9	4.2	3.8	3.1	1.5
TOT OBS	162	564	477	69	0	0	1272		10.4		266	192	114	106	264	105	98	127
TOT PCT	12.7	44.3	37.5	5.4	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	2.1	.7	.0	.0	.0				2.7	5.3	2.9	3.9	2.6
NE	2.8	2.2	.6	.0	.0				5.6	7.8	5.1	7.8	6.8
E	4.1	7.2	3.8	.1	.0				15.1	11.2	16.7	19.1	12.7
SE	5.0	14.7	8.6	.2	.0				28.6	12.5	31.0	30.8	23.4
S	5.8	13.2	6.4	.0	.0				25.4	11.8	26.3	18.5	24.2
SW	4.7	6.3	.9	.0	.0				11.9	8.6	9.7	7.2	15.9
W	2.0	2.5	.1	.0	.0				4.6	7.8	1.9	8.1	6.8
NW	2.0	1.1	.0	.0	.0				3.0	5.8	3.2	3.3	3.5
VAR	.0	.0	.0	.0	.0				.0	.0	.0	.0	.0
CALM	3.0								3.0	.0	3.3	1.4	4.1
TOT OBS	399	609	260	4	0	1272			10.4		458	270	369
TOT PCT	31.4	47.9	20.4	.3	.0				100.0		100.0	100.0	100.0

AUGUST

PERIOD: (PRIMARY) 1877-1971  
(OBSERV-ALL) 1860-1971AREA 0020 BARROW ISLAND  
19.85 114.3F

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	3.3	11.8	43.0	35.2	6.8	.0	.0	10.2	100.0	458
0600	1.4	5.5	45.9	43.2	4.1	.0	.0	11.1	100.0	220
1200	4.1	12.2	46.6	33.6	3.5	.0	.0	9.0	100.0	369
1800	2.2	5.8	41.8	43.1	7.1	.0	.0	11.5	100.0	225
TOT	38	124	564	477	69	.0	.0	10.4		1272
PCT	3.0	9.7	44.3	37.5	5.4	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6	TOTAL	MEAN
				OBSCD	OBS	CLOUD COVER
N	2.0	.2	1.2	.2		3.1
NE	4.7	1.8	1.3	.0		2.1
E	9.7	1.7	1.3	.7		1.7
SE	21.7	3.1	4.4	1.2		1.7
S	17.6	3.1	5.6	2.0		2.4
SW	4.2	1.4	1.7	.5		2.8
W	2.7	.0	.6	.2		2.0
NW	1.3	.3	1.2	.1		3.5
VAR	.0	.0	.0	.0		.0
CALM	1.7	.3	.0	.3		1.5
TOT OBS	197	36	52	16	301	2.1
TOT PCT	65.4	12.0	17.3	5.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.7	.2	.2	.0	.0	2.5	
.0	.0	.0	.3	.0	.3	.0	.0	.0	.0	7.1	
.0	.0	.0	.0	.2	.8	.0	.2	.0	.0	12.0	
.0	.0	.0	.7	2.4	.2	.6	.1	.0	.3	26.7	
.0	.0	.0	.3	3.2	.9	.9	.0	.0	.3	22.6	
.0	.0	.0	.0	.4	.8	.2	.0	.0	.0	.6	
.0	.0	.0	.0	.3	.2	.0	.0	.0	.0	2.9	
.0	.0	.0	.0	.0	.3	.1	.1	.0	.0	2.4	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	2.0	
.0	.0	.0	.4	21	13	6	2	0	2	253	
.0	.0	.0	1.3	7.0	4.3	2.0	.7	.0	.7	84.1	301
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				VSBY (NM)				VSBY (NM)			
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0	>10	>5	>2	>1
>6500	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7	.7
>6000	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
>5500	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3	3.3
>5000	7.2	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5	7.5
>4500	13.1	14.1	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4	14.4
>4000	13.7	15.0	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
>3500	13.7	15.0	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
>3000	13.7	15.0	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
>2500	13.7	15.0	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
>2000	13.7	15.0	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
>1500	13.7	15.0	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
>1000	13.7	15.0	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
>500	13.7	15.0	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
>0	13.7	15.0	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7	15.7
TOTAL	42	46	48	48	48	48	48	48	48	48	48	48

TOTAL NUMBER OF OBS: 306

PCT FREQ NH &lt;5/8: 84.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL
										OBS
41.3	21.9	11.9	5.3	4.4	5.9	3.4	2.5	3.4	.0	320



PERIOD: (PRIMARY) 1877-1971  
(OVER-ALL) 1860-1971

AUGUST

AREA 0020 BARROW ISLAND  
19.85 114.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2	.4	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.2	.0	.2	.4	
2<5	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.4	
	NO PCP	.0	.3	.3	.0	.5	.0	.0	.0	.0	.0	1.1	
	TOT %	.0	.3	.3	.0	.7	.0	.0	.0	.0	.2	1.4	
5<10	PCP	.0	.4	.0	.2	.0	.0	.0	.0	.0	.0	.5	
	NO PCP	.2	.7	2.5	2.4	2.6	2.3	1.8	.8	.0	.5	13.8	
	TOT %	.2	1.1	2.5	2.6	2.6	2.3	1.8	.8	.0	.5	14.3	
10+	PCP	.0	.0	.0	.2	.0	.7	.0	.0	.0	.0	.9	
	NO PCP	2.8	5.8	10.8	22.4	23.7	10.2	2.5	2.3	.0	2.5	83.0	
	TOT %	2.8	5.8	10.8	22.6	23.7	10.9	2.5	2.3	.0	2.5	83.9	
TOT OBS		558											
TOT PCT		3.0	7.1	13.5	25.1	27.0	13.2	4.3	3.3	.0	3.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	4-10	.1	.0	.0	.0	.0	.0	.0	.1	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.1	.0	.0	.0	.0	.0	.0	.1	.0	.2	.5	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.2	.2	.0	.3	.2	.0	.0	.9	
	11-21	.0	.0	.1	.2	.6	.1	.1	.1	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	.4	.2	.1	.4	.3	.0	.1	1.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	
	4-10	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.5	
	11-21	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.1	.2	.0	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.2	.2	.0	.5	.0	.0	.0	.0	.1	1.0	
5<10	0-3	.2	.6	.0	.1	.4	.9	.5	.4	.0	1.2	4.3	
	4-10	.5	1.5	2.9	3.3	3.5	2.8	2.4	.9	.0	.0	17.9	
	11-21	.0	.1	.9	2.4	3.0	2.1	.6	.0	.0	.0	9.1	
	22+	.0	.0	.1	.9	1.1	.0	.0	.0	.0	.0	2.1	
	TOT %	.7	2.2	3.9	6.7	8.0	5.8	3.5	1.3	.0	1.2	33.3	
10+	0-3	.7	.9	1.7	7.0	1.4	1.4	.2	.8	.0	2.4	11.6	
	4-10	1.7	2.3	3.0	5.9	7.3	4.5	1.8	1.0	.0	.0	27.4	
	11-21	.2	1.3	3.1	6.0	7.7	2.1	.6	.1	.0	.0	20.9	
	22+	.0	.0	.5	1.8	1.1	.1	.0	.0	.0	.0	3.5	
	TOT %	2.5	4.5	8.3	15.7	17.5	8.1	2.6	1.8	.0	2.4	63.5	
TOT OBS		817											
TOT PCT		3.4	7.0	12.5	22.9	26.2	14.0	6.4	3.5	.0	4.2	100.0	

AUGUST

PERIOD: (PRIMARY) 1877-1971  
(OVER-ALL) 1860-1971AREA 0020 BARROW ISLAND  
19.85 114.3E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NM >4/8) AND  
OCCURRENCE OF NM <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NM <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	3.3	6.6	5.5	2.2	1.1	.0	.0	18.7	81.3	91
06009	.0	.0	.0	.0	7.8	1.3	2.6	1.3	.0	1.3	14.3	85.7	77
12015	.0	.0	.0	1.3	3.9	3.9	1.3	.0	.0	.0	10.5	89.5	76
18021	.0	.0	.0	.0	6.0	5.3	1.3	.0	.0	1.3	16.0	84.0	75
TOT	0	0	0	4	21	13	6	2	0	2	48	271	319
PCT	.0	.0	.0	1.3	6.6	4.1	1.9	.6	.0	.5	15.0	84.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.9	.0	1.2	1.5	25.9	70.4	324
06009	.8	.0	2.3	.0	27.5	69.5	131
12015	.0	.8	2.0	.8	47.0	49.4	247
18021	.0	.0	.7	.7	35.0	63.5	137
TOT	4	2	13	8	284	528	839
PCT	.5	.2	1.5	1.0	33.8	62.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NM >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NM <5/8 AND 5+	TOTAL OBS
00003	.0	.0	3.5	16.3	80.2	86
06009	.0	.0	.0	14.5	85.5	76
12015	.0	.0	1.4	9.7	88.9	72
18021	.0	.0	1.4	15.3	83.3	72
TOT	0	0	5	43	258	306
PCT	.0	.0	1.6	14.1	84.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
84/89	.0	.0	.0	.0	.2	.0	.0	.0	1	.2
80/84	.0	.0	.0	.0	.0	.2	.0	.0	1	.2
75/79	.0	.2	.5	2.1	4.3	4.3	2.3	.5	92	14.1
70/74	.2	.3	3.1	8.4	13.0	12.2	10.2	4.6	340	52.0
65/69	.0	.5	1.4	5.0	5.5	7.2	5.5	2.8	182	27.8
60/64	.0	.0	.3	.8	1.2	1.2	1.1	.9	36	5.5
55/59	.0	.0	.0	.0	.0	.0	.2	.2	2	.3
TOTAL	1	6	34	107	158	164	126	58	654	100.0
PCT	.2	.9	5.2	16.4	24.2	25.1	19.3	8.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
.0	.0	.0	.0	.2	.0	.0	.0	.0	.0
.8	1.3	2.7	3.9	2.1	1.4	.6	1.0	.0	.3
2.2	3.9	7.4	9.3	12.0	7.0	5.9	2.4	.0	1.8
.5	1.1	1.3	8.6	9.7	4.6	.4	.3	.0	1.2
.0	.0	.2	1.7	2.3	1.0	.0	.0	.0	.3
.0	.0	.0	.0	.0	.2	.1	.0	.0	.0
3.5	6.3	11.6	23.5	26.2	14.3	7.1	3.7	.0	3.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	87	82	79	72	63	60	58	71.5	462
06009	84	81	78	73	68	66	62	73.3	220
12015	84	79	77	72	66	64	63	71.8	371
18021	81	77	76	71	65	62	61	70.5	224
TOT	87	81	77	72	65	61	58	71.7	1277

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	23.8	22.1	25.0	19.6	9.6	71	240
06009	.9	38.0	29.6	16.7	11.1	3.7	64	108
12015	.0	12.9	22.0	29.2	25.4	10.5	74	209
18021	.0	21.2	26.3	25.4	16.9	10.2	71	118
TOT	1	150	162	169	132	61	71	675

## AUGUST

PERIOD: (PRIMARY) 1877-1971  
(OVER-ALL) 1860-1971AREA 0020 BARROW ISLAND  
19.85 114.3E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.3	1	.0	.3
9/10	.0	.0	.0	.0	.6	1.0	2	.0	.6
7/8	.0	.0	.3	1.0	.3	1.0	8	.0	2.6
6	.0	.0	.6	.0	.0	.6	4	.0	1.3
5	.0	.6	.3	1.0	.6	.3	9	.0	2.9
4	.0	.0	.0	.6	1.3	1.0	9	.0	2.9
3	.0	1.0	.6	1.6	1.0	.0	13	.0	4.2
2	.0	.3	.6	4.5	1.9	.0	23	.0	7.3
1	.0	.0	1.3	3.5	1.6	.0	20	.0	6.4
0	.3	.0	1.9	4.2	1.6	.0	25	.0	8.0
-1	.0	.6	3.8	8.0	.3	.0	40	.0	12.8
-2	.0	1.0	6.7	5.1	.6	.3	43	.0	13.7
-3	.3	.3	4.5	3.8	.0	.0	28	.0	8.9
-4	.0	1.0	4.2	1.6	.3	.0	22	.0	7.0
-5	.3	2.6	5.4	.3	.0	.0	27	.0	8.6
-6	.0	2.2	2.9	.0	.0	.0	16	.0	5.1
-7/-8	.0	2.2	.6	.6	.0	.0	11	.0	3.5
-9/-10	.6	1.3	.6	.0	.0	.0	8	.0	2.6
-11/-13	.3	.6	.3	.0	.0	.0	4	.0	1.3
TOTAL	6		109		32		313	0	313
PCT	1.9	13.7	34.8	35.8	10.2	3.5	100.0		100.0

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.4	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.4	.0	.0	.0	.0	1.4	.0	2.1	.0	.0	.0	.0	2.1
3-4	.0	.4	.0	.0	.0	.0	.4	.0	1.0	1.6	.0	.0	.0	2.6
5-6	.0	.0	.4	.0	.0	.0	.4	.0	.0	1.5	.0	.0	.0	2.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.1	.4	.0	.0	.0	2.5	.0	3.6	3.6	.0	.0	.0	7.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	1.6
1-2	.0	2.0	.5	.0	.0	.0	2.5	.0	7.4	.5	.0	.0	.0	7.9
3-4	.0	.4	4.8	1.5	.0	.0	6.7	.0	1.1	6.2	1.5	.0	.0	8.8
5-6	.0	.0	3.4	.5	.0	.0	3.9	.0	.6	6.0	2.0	.0	.0	8.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	1.5	.0	.0	3.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.4	8.7	2.0	.0	.0	13.1	1.0	9.8	14.7	3.5	.0	.0	31.0

PERIOD: (OVER-ALL) 1963-1971

AUGUST

AREA ON20, BARROW ISLAND  
19.85 114.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.9	.0	.0	.0	.0	.0	.9	.0	.1	.0	.0	.0	.0	.0	.1
1-2	.0	5.0	3.4	.0	.0	.0	.0	8.4	.5	1.9	1.1	.0	.0	.0	.0	3.5
3-4	.0	2.5	5.2	.0	.0	.0	.0	7.7	.0	2.5	.9	.0	.0	.0	.0	3.4
5-6	.0	.4	8.2	.9	.0	.0	.0	9.4	.0	.0	.0	.1	.0	.0	.0	.1
7	.0	.0	1.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1
10-11	.0	.0	.5	.5	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	8.8	14.2	1.4	.0	.0	.0	28.4	.5	4.6	2.0	.1	.0	.0	.0	7.3

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	1.3	.0	.0	.0	.0	.0	1.3	.5	.8	.0	.0	.0	.0	.0	1.3	
1-2	.0	1.3	.0	.0	.0	.0	.0	1.3	.5	.5	.0	.0	.0	.0	.0	1.0	
3-4	.0	1.0	.0	.0	.0	.0	.0	1.0	.0	.6	.0	.0	.0	.0	.0	.6	
5-6	.0	.0	.5	.0	.0	.0	.0	.5	.0	.0	.1	.0	.0	.0	.0	.1	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.4	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	3.9	.5	.0	.0	.0	.0	4.4	1.0	1.9	.1	.0	.0	.0	.0	3.0	97.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	5.0	4.0	.0	.0	.0	.0	.0	9.0
1-2	1.0	21.5	5.5	.0	.0	.0	.0	28.0
3-4	.0	9.5	18.5	3.0	.0	.0	.0	31.0
5-6	.0	1.5	20.0	3.5	.0	.0	.0	25.0
7	.0	.0	3.0	1.5	.0	.0	.0	4.5
8-9	.0	.5	.0	.5	.0	.0	.0	1.0
10-11	.0	.0	1.0	.5	.0	.0	.0	1.5
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	6.0	37.0	48.0	9.0	.0	.0	100.0	200

PERIOD: (OVER-ALL) 1961-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	1.2	7.5	17.0	8.3	4.6	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	97	4
6-7	.0	.0	5.0	12.0	2.9	2.9	1.7	.8	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	62	6
8-9	.0	.0	2.1	3.3	4.1	1.2	1.7	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	32	7
10-11	.0	.0	.8	2.9	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	5
12-13	.0	.0	1.7	1.7	.4	.8	.8	.4	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16	7
>13	.0	.0	.0	.0	.8	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	8
INDEX	2.9	1.2	.4	2.5	1.2	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	3
TOTAL	10	21	65	74	34	17	10	7	3	0	0	0	0	0	0	0	0	0	0	241	5
PCT	4.1	8.7	27.0	30.7	14.1	7.1	4.1	2.9	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1883-1971  
(OVER-ALL) 1859-1971

AREA 0020 BARROW ISLAND  
19.95 114.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE						OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	.0	.0	.0	94.7
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.2	.0	.0	.0	81.8
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	1.6	.0	.0	.0	.0	.0	1.6	.0	.0	.0	.0	.0	98.4
S	.4	1.7	.0	.0	.0	.0	.0	2.1	.0	.4	.0	.0	.0	97.4
SW	.0	.3	.0	.0	.0	.0	.0	.3	.0	2.3	.0	.0	.6	96.8
W	.0	3.0	.0	.0	.0	.0	.0	3.0	.0	5.9	.0	.0	2.0	89.2
NW	6.8	3.4	.0	.0	.0	.0	.0	10.2	.0	.0	.0	.0	.0	89.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.3	1.3	.0	.0	.0	.0	.0	1.6	.0	1.6	.0	.0	.3	96.5
TOT OBS:	636													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE						OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
0000	.4	1.3	.0	.0	.0	.0	.0	1.7	.0	.4	.0	.0	.4	97.4
0600	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
1200	.5	2.1	.0	.0	.0	.0	.0	2.6	.0	2.6	.0	.0	.5	94.3
1800	.0	.8	.0	.0	.0	.0	.0	.8	.0	4.1	.0	.0	.0	95.0
TOT PCT	.3	1.2	.0	.0	.0	.0	.0	1.5	.0	1.7	.0	.0	.3	96.5
TOT OBS:	650													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	1.0	.1	.0	.0	.0		1.5	5.5	.9	2.4	.0	.9	3.2	2.7	.0	.0	.0
NE	.5	1.5	.5	.0	.0	.0		2.5	7.6	1.2	4.9	.2	8.8	2.1	2.2	.4	1.5	.0
E	1.1	2.9	2.6	.6	.1	.0		7.2	10.7	6.5	8.6	11.4	11.6	4.9	8.1	5.5	5.5	.0
SE	.6	6.9	8.5	1.2	.5	.0		17.7	13.1	23.4	17.7	22.0	15.7	13.0	14.0	15.7	18.7	.0
S	2.2	15.4	12.5	2.2	.*	.0		32.4	11.2	39.7	32.6	32.2	28.1	30.7	22.0	37.2	31.5	.0
SW	1.9	12.8	10.5	.7	.0	.0		25.9	10.3	21.5	21.6	20.6	27.3	27.9	36.4	27.2	33.3	.0
W	1.3	4.4	1.8	.1	.0	.0		7.6	8.5	5.1	7.0	7.7	6.5	10.5	10.2	7.5	6.5	.0
NW	.5	1.6	.6	.0	.0	.0		2.7	7.8	.8	3.6	3.0	5.1	4.7	2.2	1.1	1.2	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.3							2.3	.0	.7	1.7	2.8	.9	2.9	4.3	5.3	1.6	.0
TOT OBS	138	589	469	60	8	0	1264		10.5	268	175	107	108	274	93	113	125	.0
TOT PCT	10.9	46.6	37.1	4.7	.6	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	1.0	.5	.0	.0	.0		1.5	5.5	1.5	.5	3.1	.0	
NE	1.2	1.2	.2	.0	.0		2.5	7.6	2.7	4.5	2.1	1.0	
E	2.6	3.0	1.3	.3	.0		7.2	10.7	7.3	11.5	5.7	5.5	
SE	3.9	8.3	4.7	.4	.4		17.7	13.1	21.2	18.8	13.3	17.3	
S	8.1	17.3	6.7	.2	.*		32.4	11.2	36.9	27.7	28.5	34.2	
SW	7.4	14.9	3.5	.2	.0		25.9	10.3	21.5	24.0	29.6	30.4	
W	2.9	3.9	.8	.0	.0		7.6	8.5	5.9	7.1	10.4	7.0	
NW	1.2	1.3	.2	.0	.0		2.7	7.8	1.9	4.1	4.0	1.2	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	2.3						2.3		1.1	1.9	3.3	3.3	
TOT OBS	388	638	220	13	5	1264		10.5	443	215	367	239	
TOT PCT	30.7	50.5	17.4	1.0	.4		100.0		100.0	100.0	100.0	100.0	



SEPTEMBER

PERIOD: (PRIMARY) 1883-1971  
(OVER-ALL) 1859-1971

AREA 0020 BARROW ISLAND  
19.95 114.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000	1.1	13.5	44.5	35.4	4.5	.9	.0	10.3	100.0	443	
0600	1.9	4.2	43.3	45.1	4.7	.9	.0	11.4	100.0	215	
1200	3.3	9.0	52.3	32.2	3.3	.0	.0	9.6	100.0	367	
1800	3.3	2.9	44.8	40.6	7.5	.8	.0	11.6	100.0	239	
TOT	2.9	10.9	58.9	46.9	6.0	.8	.0	10.5		1264	
PCT	2.3	8.6	46.6	37.1	4.7	.6	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	1.0	.0	.0	.0		.5
NE	.1	.0	.0	.0		.5
E	2.2	.0	1.4	.0		2.5
SE	13.2	1.4	2.7	.6		1.6
S	29.0	4.0	2.3	.3		1.0
SW	20.9	3.3	2.5	.0		1.1
W	7.7	1.2	.0	.0		.7
NW	2.0	.0	.3	.0		1.3
VAR	.0	.0	.0	.0		.0
CALM	4.0	.0	.0	.0		.0
TOT OBS	277	34	37	3	346	1.2
TOT PCT	80.1	9.8	9.2	.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
E	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.6	2.8
SE	.0	.0	.0	.6	.4	.6	.0	.0	.0	.3	.6	15.4
S	.0	.0	.0	.3	.8	.0	.3	.0	.0	.0	.5	33.7
SW	.0	.0	.0	.3	.3	.3	.0	.0	.0	.1	.1	25.7
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.9
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT OBS	0	0	0	0	5	3	1	0	1	6	325	346
TOT PCT	.0	.0	.0	1.4	1.4	.9	.3	.0	.3	1.7	93.9	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>5000	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
>4000	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
>3000	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>2000	3.1	3.1	3.1	3.1	3.1	3.1	3.1	3.1
>1000	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
>600	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
>300	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
>150	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
>0	5.9	5.9	5.9	5.9	5.9	5.9	5.9	5.9
TOTAL	21	21	21	21	21	21	21	21

TOTAL NUMBER OF OBS: 356

PCT FREQ NH <5/8: 94.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
	61.3	18.6	5.7	5.2	3.6	1.5	2.1	1.5	.5	.0	388

SEPTEMBER

PERIOD: (PRIMARY) 1883-1971  
(OVER-ALL) 1859-1971

AREA 0020 BARROW ISLAND  
19.95 114.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.1	.8	.2	.2	.0	.0	.0	.0	1.3
	TOT %	.0	.0	.0	.1	.8	.2	.2	.0	.0	.0	.0	1.3
5<10	PCP	.0	.0	.0	.0	.2	.0	.1	.2	.0	.0	.0	.5
	NO PCP	.4	.5	.6	1.0	4.0	4.3	1.7	.7	.0	.0	.0	13.2
	TOT %	.4	.5	.6	1.0	4.2	4.3	1.8	.9	.0	.0	.0	13.7
10+	PCP	.0	.0	.0	.2	.6	.1	.1	*	.0	.0	.0	1.1
	NO PCP	1.1	.8	4.2	13.8	31.1	22.6	5.9	1.4	.0	2.8	83.8	
	TOT %	1.1	.8	4.2	14.1	31.8	22.6	6.0	1.5	.0	2.8	84.9	
TOT OBS													
TOT PCT													
		1.5	1.3	4.9	15.2	36.7	27.3	8.0	2.3	.0	2.8	100.0	636

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
1<2	0-3	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.1	.1
	4-10	.1	.2	.1	.1	.1	.4	.3	.0	.0	.0	1.2	
	11-21	.0	.1	.1	.0	.0	.3	.2	.0	.0	.0	.5	
	22+	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	
	TOT %	.1	.3	.2	.1	.2	.7	.4	.0	.0	.0	1.9	
2<5	0-3	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	.2
	4-10	.0	.0	.0	.1	.3	*	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.1	.5	.1	.1	.0	.0	.0	.9	.9
5<10	0-3	.3	.2	.2	.1	.3	.3	.8	.2	.0	.4	2.9	
	4-10	.8	1.1	.8	1.6	4.5	4.9	1.9	.8	.0	.0	16.2	
	11-21	.0	.4	.7	1.5	2.7	4.6	1.0	.3	.0	.0	11.1	
	22+	.0	.0	.0	.1	.5	.2	.1	.0	.0	.0	1.0	
	TOT %	1.1	1.7	1.7	3.3	8.0	10.0	3.8	1.3	.0	.4	31.2	
10+	0-3	.3	.3	.7	.5	2.5	2.0	.9	.2	.0	2.4	9.8	
	4-10	.4	.5	1.3	5.5	10.5	8.9	3.4	1.2	.0	.0	31.6	
	11-21	.1	*	1.0	4.2	9.2	6.1	.9	.1	.0	.0	21.7	
	22+	.0	.0	.2	.3	1.6	.7	.0	.0	.0	.0	2.9	
	TOT %	.8	.8	3.2	10.6	23.8	17.7	5.1	1.6	.0	2.4	65.9	
TOT OBS													
TOT PCT													
		1.9	2.7	5.1	14.1	32.6	28.5	9.5	2.9	.0	2.8	100.0	933

SEPTEMBER

PERIOD: (PRIMARY) 1889-1971  
(OVER-ALL) 1859-1971

AREA 0020 BARRON ISLAND  
19.95 114.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET) NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	3.0	3.0	.0	.0	.0	1.0	3.0	9.9	90.1	101
06009	.0	.0	.0	1.1	.0	1.1	.0	.0	.0	2.3	4.5	95.5	88
12015	.0	.0	.0	1.0	1.0	.0	.0	.0	.0	1.0	3.0	97.0	100
18021	.0	.0	.0	.0	1.0	2.0	1.0	.0	.0	.0	4.1	95.9	98
TOT	0	0	0	5	5	3	1	0	1	6	21	366	387
PCT	.0	.0	.0	1.3	1.3	.8	.3	.0	.3	1.6	5.4	94.6	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.3	1.4	.6	30.0	67.7	347
06009	.0	.0	2.1	.0	24.8	73.1	145
12015	.0	.0	3.4	2.1	39.5	55.0	291
18021	.0	.0	.0	.0	29.1	70.9	179
TOT	0	1	18	8	307	628	962
PCT	.0	.1	1.9	.8	31.9	65.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR  
CEILING HGT (FEET) NH >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	3.5	8.2	88.2	85
06009	.0	.0	1.1	3.4	95.4	87
12015	.0	.0	1.1	2.2	96.7	92
18021	.0	.0	.0	4.3	95.7	92
TOT	0	0	5	16	335	356
PCT	.0	.0	1.4	4.5	94.1	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.0	.1	.0	.0	1	.1
80/84	.0	.1	.3	.7	1.2	.5	.4	.1	25	3.3
75/79	.0	.0	1.3	3.4	8.2	10.2	4.7	1.6	226	29.5
70/74	.0	.1	1.4	3.0	4.4	12.9	14.1	5.5	349	45.6
65/69	.0	.0	.3	1.2	3.7	6.0	3.8	1.6	126	16.4
60/64	.0	.0	.0	.1	.9	.9	1.4	.5	30	3.9
55/59	.0	.0	.0	.0	.0	.8	.1	.1	8	1.0
50/54	.0	.0	.0	.0	.0	.0	.1	.0	1	.1
TOTAL	0	2	26	65	171	241	189	72	766	100.0
PCT	.0	.3	3.4	8.5	22.3	31.5	24.7	9.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.1	.0	.0	.0
.0	.2	.2	.6	1.1	.7	.3	.1	.0	.0
1.2	1.5	2.3	4.5	6.6	7.8	2.6	1.6	.0	1.3
.8	1.1	1.6	4.6	14.0	15.0	5.5	1.0	.0	2.0
.1	.2	.4	2.8	7.4	4.8	.5	.1	.0	.1
.0	.0	.0	.8	1.4	1.2	.4	.1	.0	.0
.1	.0	.1	.1	.3	.1	.2	.2	.0	.0
.0	*	.1	.0	.0	.0	.0	.0	.0	.0
2.3	3.0	4.8	13.4	30.7	29.6	9.6	3.2	.0	3.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	85	84	81	73	64	57	52	72.9	445
06009	85	84	81	75	70	67	65	74.9	210
12015	85	82	79	73	67	62	56	73.1	370
18021	82	78	77	72	66	64	63	71.6	244
TOT	85	84	80	73	66	61	52	73.0	1269

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL
(GMT)								OBS
00003	.0	17.7	22.9	29.2	22.6	7.6	72	288
06009	.0	18.6	39.8	32.2	9.3	.0	58	118
12015	.0	3.8	15.9	31.8	33.5	15.1	78	239
18021	.0	8.7	17.3	35.3	27.3	11.3	76	150
TOT	0	95	177	251	197	75	74	795

SEPTEMBER

PERIOD: (PRIMARY) 1883-1971  
(OVER-ALL) 1859-1971

TABLE 17

AREA 0020 BARROW ISLAND  
19.9S 114.5E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.3	.0	.3	2	.0	.5
9/10	.0	.0	.0	.3	.0	.3	.0	2	.0	.5
7/8	.0	.0	.5	.3	.0	1.4	.3	9	.0	2.5
6	.0	.0	.3	.5	.3	.3	.0	5	.0	1.4
5	.0	.5	.0	.3	1.1	.0	.0	7	.0	1.9
4	.0	.3	.3	.5	1.1	.8	.0	11	.0	3.0
3	.0	.0	.0	1.6	1.8	1.4	.0	17	.0	4.7
2	.0	.0	.3	4.4	1.9	1.4	.3	30	.0	8.2
1	.0	.0	.8	3.3	2.7	.0	.0	25	.0	6.9
0	.3	.0	3.3	8.2	3.0	.8	.0	57	.0	15.7
-1	.0	.3	3.8	8.2	1.9	.0	.0	52	.0	14.3
-2	.0	.0	6.6	8.0	.5	.3	.0	56	.0	15.4
-3	.3	.3	5.5	1.9	.5	.0	.0	31	.0	8.5
-4	.0	.5	2.7	2.5	.0	.0	.0	21	.0	5.8
-5	.0	.8	1.6	1.1	.3	.0	.0	14	.0	3.8
-6	.0	1.9	1.4	.5	.3	.0	.0	15	.0	4.1
-7/-8	.5	.5	.5	.5	.0	.0	.0	8	.0	2.2
-9/-10	.5	.0	.0	.0	.0	.0	.0	2	.0	.5
TOTAL	6	19	101	57	24	3		364	0	364
PCT	1.6	5.2	27.7	42.3	15.7	6.6	.8	100.0		100.0

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N							PCT	NE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.4	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.4	.3	.0	.0	.0	.0	.0	.7	.0	.0	.1	.0	.0	.0	.0	.1
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	.7	.0	.0	.0	.0	.0	1.1	.0	.0	.1	.0	.0	.0	.0	1.1

HGT	E							PCT	SE							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.4	.0	.0	.0	.0	.0	.0	.4	.4	.8	.0	.0	.0	.0	.0	1.2
1-2	.4	.8	.3	.0	.0	.0	.0	1.5	.0	4.3	1.0	.0	.0	.0	.0	5.3
3-4	.0	.4	2.0	.0	.0	.0	.0	2.4	.0	.9	3.1	.0	.0	.0	.0	4.0
5-6	.0	.0	.4	.0	.0	.0	.0	.4	.0	.8	1.1	.4	.0	.0	.0	2.3
7	.0	.0	.0	.8	.0	.0	.0	.8	.0	.0	.8	.1	.7	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.4	.0	.0	.0	1.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.4
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	1.2	2.7	.8	.0	.0	.0	5.4	.4	7.2	6.7	.9	.0	.0	.0	15.2

PERIOD: (OVER-ALL) 1963-1971

SEPTEMBER

AREA 0020 BARROW ISLAND  
19.95 114.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW						
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.6	.0	.0	.0	.0	2.2	.2	.5	.0	.0	.0	.0	.7
1-2	.0	7.2	2.5	.0	.0	.0	9.7	.4	5.9	3.0	.0	.0	.0	9.3
3-4	.0	2.5	9.0	.0	.0	.0	11.5	.0	2.6	6.2	.0	.0	.0	8.8
5-6	.0	.3	5.3	.8	.0	.0	6.4	.0	.5	4.7	.4	.0	.0	5.6
7	.0	.0	2.6	.7	.0	.0	3.3	.0	.0	1.0	.0	.0	.0	1.0
8-9	.0	.4	1.5	1.5	.0	.0	3.4	.0	.0	.1	.9	.0	.0	1.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	12.0	20.8	3.0	.0	.0	36.4	.6	9.5	15.0	1.3	.0	.0	26.4

HGT	W							NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	1.5	.0	.0	.0	.0	1.5	.0	.4	.0	.0	.0	.0	.4	96.0
1-2	.4	4.8	.3	.0	.0	.0	5.5	.0	.7	.0	.0	.0	.0	.7	
3-4	.0	1.6	.3	.0	.0	.0	1.9	.0	.0	.4	.0	.0	.0	.4	
5-6	.0	.4	.7	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.4	8.3	1.3	.0	.0	.0	10.0	.0	1.1	.4	.0	.0	.0	1.5	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	7.3	5.0	.0	.0	.0	.0	12.4	259
1-2	1.9	23.6	6.9	.0	.0	.0	32.4	
3-4	.0	7.7	20.5	.0	.0	.0	28.2	
5-6	.0	1.9	12.0	1.5	.0	.0	15.4	
7	.0	.0	4.2	1.5	.0	.0	5.8	
8-9	.0	.4	2.3	2.7	.0	.0	5.4	
10-11	.0	.4	.0	.0	.0	.0	.4	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.3	39.0	45.9	5.8	.0	.0	100.0	

PERIOD: (OVER-ALL) 1949-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.6	13.1	12.5	4.6	2.6	1.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	117	3
6-7	.0	2.3	8.5	9.8	8.9	3.3	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	105	5
8-9	.0	.0	1.6	4.6	3.3	2.6	2.6	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	49	7
10-11	.0	.0	.0	1.3	1.0	1.6	1.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	8
12-13	.0	.0	.0	.0	.0	.3	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	9
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	0
INDET	3.3	.3	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	1
TOTAL	21	48	69	62	50	29	20	5	1	0	0	0	0	0	0	0	0	0	0	305	5
PCT	6.9	15.7	22.6	20.3	16.4	9.5	6.6	1.6	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1879-1970  
(OVER-ALL) 1856-1970

OCTOBER

AREA 0070 BARROW ISLAND  
19.75 114.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.5	.0	5.6	.0 82.0
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	.0	.0	.0 97.6
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 100.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0 97.9
S	.4	.0	.4	.0	.0	.0	.0	.4	.0	.4	.0	.0	3.0	.0 95.7
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0 98.4
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.9	.0	.0	3.8	.0 94.3
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.4	.0	.0	8.4	.0 83.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.8	.0 81.3
TOT PCT	.2	.0	.2	.0	.0	.0	.0	.2	.0	.9	.4	.0	3.3	.0 95.2
TOT OBS:	538													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG
0000Z	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	4.3	.0 95.2
0600Z	1.0	.0	1.0	.0	.0	.0	.0	1.0	.0	.0	1.0	.0	2.0	.0 96.0
1200Z	.9	.0	.0	.0	.0	.0	.0	.0	.0	2.0	.7	.0	4.0	.0 93.3
1800Z	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	1.9	.0 97.2
TOT PCT	.2	.0	.2	.0	.0	.0	.0	.2	.0	.9	.4	.0	3.3	.0 95.2
TOT OBS:	543													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.3	1.3	.2	.0	.0	.0		1.7	7.1		1.7	.3	5.3	3.0	2.0	.0	.0	1.3
NE	.1	1.1	.4	.1	.0	.0		1.7	9.7		.9	.6	4.1	1.5	2.6	.0	1.8	1.3
E	.4	1.7	.7	.0	.0	.0		2.8	8.4		2.0	5.1	2.1	3.0	2.6	3.9	.9	2.5
SE	.8	4.8	7.5	1.4	.0	.0		14.5	13.0		15.4	23.1	11.9	16.8	10.3	12.8	8.0	17.4
S	1.4	15.8	19.5	4.2	.0	.0		40.9	12.6		47.3	41.9	41.4	36.1	32.4	33.3	47.9	47.0
SW	1.4	10.8	8.7	.8	.1	.0		21.8	10.9		21.9	16.8	23.8	14.4	29.5	26.7	17.2	18.2
W	.5	6.8	2.9	.0	.0	.0		10.2	8.8		5.9	5.9	5.9	16.3	14.8	13.3	12.4	10.6
NW	.7	3.3	.7	.0	.0	.0		4.7	7.0		3.1	4.3	4.7	7.9	5.7	10.0	2.5	1.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.6							1.6	.0		1.8	1.9	.8	1.0	.0	.0	9.2	.0
TOT OBS	84	528	471	76	1	0	1160		11.2		221	161	128	101	732	90	109	118
TOT PCT	7.2	43.5	40.6	6.6	.1	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	03	06	09
N	.8	1.0	.0	.0	.0	.0			1.1	4.3	1.5	.7
NE	.8	.0	.2	.1	.0				.8	2.9	1.9	1.5
E	1.0	1.7	.0	.0	.0				3.3	2.5	3.0	1.8
SE	2.3	7.4	4.5	.2	.0				14.5	13.0	18.7	14.1
S	6.9	23.6	9.6	.7	.0				40.9	12.6	45.0	39.1
SW	4.5	13.8	3.3	.2	.1				21.8	10.9	19.8	19.7
W	3.2	6.7	.4	.0	.0				10.2	8.8	5.9	10.5
NW	2.5	2.2	.0	.0	.0				4.7	7.0	3.6	6.1
VAR	.0	.0	.0	.0	.0				.0	.0	.0	.0
CALM	1.6								1.6	.0	.0	.0
TOT OBS	275	661	210	13	1	1160			382	229	322	227
TOT PCT	23.7	57.0	18.1	1.1	.1				100.0	100.0	100.0	100.0

AREA 0020 BARROW ISLAND  
19.75 114.3E

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	1.8	7.3	44.2	39.8	6.8	.0	.0	11.1	100.0	282
0000	.9	6.1	44.5	42.8	5.2	.0	.0	11.3	100.0	220
1215	.0	3.4	50.0	41.9	4.7	.0	.0	11.3	100.0	227
1621	4.4	5.6	42.3	37.9	10.1	.0	.0	11.3	100.0	322
PCT	1.9	6.5	52.8	47.1	7.6	1	.0	11.2		1160
TOT	1.6	5.6	45.5	40.6	6.6	.1	.0	100.0		

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH  $\geq 4/8$ )  
AND OCCURRENCE OF NH  $\leq 5/8$  BY WIND DIRECTION

WIND DIR	BY WIND DIRECTION					MEAN CLOUD COVER	BY WIND SPEED										TOTAL OBS
	0-2	3-4	5-7	8-10	TOTAL OBS		000	150	300	600	1000	2000	3500	5000	6500	8000+	
N	1.5	.5	1.2	.0	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	3.0
NE	2.1	.3	.0	.0	1.4	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	2.4
E	1.3	.0	.3	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6
SE	6.1	.6	.4	.0	.8	.0	.0	.0	.0	.1	.0	.3	.0	.0	.0	.0	6.7
S	29.5	7.5	5.2	.8	1.8	.0	.0	.0	.2	1.9	1.6	.0	.0	.0	.0	.0	39.4
SW	17.1	3.1	2.3	.0	1.3	.0	.0	.0	.1	.2	.7	.3	.0	.0	.0	.0	21.2
W	9.1	1.5	1.1	.0	1.1	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.2	11.0
NW	2.5	1.1	1.0	.0	2.1	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.1	4.2
VAR	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALLW	3.3	.3	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6
TOT OBS	262	54	42	.4	362	.0	.0	.0	1	9	11	2	.0	.0	.0	.0	337
TOT PCT	72.4	14.9	11.6	1.1	100.0	.0	.0	.0	.3	2.5	3.0	.6	.0	.0	.0	.6	93.1

CUMULATIVE PCT FRQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >6500	.5	.5	.5	.5	.5	.5	.5	.5
OR >5000	.5	.5	.5	.5	.5	.5	.5	.5
OR >3500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
OR >2000	4.1	4.1	4.1	4.1	4.1	4.1	4.1	4.1
OR >1000	6.0	6.6	6.6	6.6	6.6	6.6	6.6	6.6
OR >600	6.3	6.9	6.9	6.9	6.9	6.9	6.9	6.9
OR >300	6.3	6.9	6.9	6.9	6.9	6.9	6.9	6.9
OR >150	6.3	6.9	6.9	6.9	6.9	6.9	6.9	6.9
OR > 0	6.3	6.9	6.9	6.9	6.9	6.9	6.9	6.9
TOTAL	23	25	25	25	25	25	25	25

PCT FREQ NH 45/81 93.1

PERCENTAGE FREQ OF LOW CLOUDS (FIGHTS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
52.1	16.4	10.7	7.8	6.3	2.6	2.9	1.0	.3	.0	384

PERIOD: (PRIMARY) 1979-1970  
(OVER-ALL) 1956-1970

OCTOBER

AREA 0020 BARROW ISLAND  
19.7S 114.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.6	
	TOT %	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.6	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.3	*	.0	.1	1.0	.2	.0	.0	.0	.0	1.7	
	TOT %	.3	*	.0	.1	1.0	.2	.0	.0	.0	.0	1.7	
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.6	.3	.4	1.9	3.3	1.9	.8	.4	.0	.6	10.0	
	TOT %	.6	.3	.4	1.9	3.3	1.9	.8	.4	.0	.6	10.0	
10+	PCP	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	
	NO PCP	1.9	1.6	2.0	6.8	38.7	21.7	8.5	4.0	.0	2.4	87.5	
	TOT %	1.9	1.6	2.0	6.8	38.8	21.7	8.5	4.0	.0	2.4	87.7	
TOT OBS													
TOT PCT													
		2.8	1.9	2.3	8.8	43.1	23.8	9.8	4.4	.0	3.0	100.0	538

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	4-10	.0	.1	.0	.0	.2	.5	1.1	.1	.0	.0	2.0	
	11-21	.0	.0	.0	.0	.1	.3	.4	.0	.0	.0	.8	
	22+	.0	.0	.0	.1	.4	.0	.0	.0	.0	.0	.5	
	TOT %	.0	.1	.0	.3	.7	.9	1.5	.1	.0	.0	3.4	
2<5	0-3	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.1	.0	.0	.1	.7	.1	.0	.0	.0	.0	1.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	*	.0	.1	.7	.1	.0	.0	.0	.0	1.2	
5<10	0-3	.1	.0	.0	.0	.1	.1	.5	.1	.0	.8	1.7	
	4-10	.6	.5	.4	1.1	3.0	2.9	3.5	2.5	.0	.0	14.5	
	11-21	.0	.1	.1	.7	3.3	2.4	1.0	.3	.0	.0	7.9	
	22+	.0	.1	.0	.3	1.1	.3	.0	.0	.0	.0	1.8	
	TOT %	.7	.8	.5	2.0	7.5	5.8	5.0	2.9	.0	.8	26.0	
10+	0-3	.1	.1	.2	.4	.8	1.6	.2	.8	.0	1.7	5.9	
	4-10	1.2	.9	1.2	2.8	10.4	7.9	5.1	1.9	.0	.0	31.8	
	11-21	.3	.3	.3	1.9	15.5	7.4	1.8	.3	.0	.0	27.7	
	22+	.0	.0	.0	.5	3.2	.3	.0	.0	.0	.0	4.0	
	TOT %	1.6	1.3	1.6	5.6	30.4	17.1	7.1	3.0	.0	1.7	69.4	
TOT OBS													
TOT PCT													
		2.5	2.2	2.0	7.9	39.3	23.8	13.6	6.0	.0	2.5	100.0	758

OCTOBER

PERIOD: (PRIMARY) 1879-1970  
(OVER-ALL) 1856-1970AREA 0020 BARROW ISLAND  
19.75 114.3E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <3/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	3.9	3.9	.0	.0	.0	.0	7.8	92.2	102
06009	.0	.0	.0	1.1	1.1	1.1	.0	.0	.0	1.1	4.6	95.4	87
12015	.0	.0	.0	.0	.0	4.0	1.0	.0	.0	1.0	5.9	94.1	101
18021	.0	.0	.0	.0	4.3	2.2	1.1	.0	.0	.0	7.5	92.5	93
TOT	0	0	0	1	9	11	2	0	0	2	25	358	383
PCT	.0	.0	.0	.3	2.3	2.9	.5	.0	.0	.5	6.5	93.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	3.9	.8	24.9	70.4	757
06009	.0	.0	2.2	.7	21.7	75.4	138
12015	.4	.0	4.8	2.6	31.9	60.3	229
18021	.0	.0	2.0	.0	27.5	70.6	153
TOT	1	0	27	9	209	531	777
PCT	.1	.0	3.5	1.2	26.9	68.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ ANDS+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	8.4	91.6	95
06009	.0	.0	2.4	3.6	94.0	84
12015	.0	.0	1.0	6.1	92.9	98
18021	.0	.0	.0	8.0	92.0	87
TOT	0	0	3	24	337	364
PCT	.0	.0	.8	6.5	92.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.3	.0	.0	.0	.0	.0	2	.3
85/89	.0	.5	.9	.2	.3	.3	.2	.0	14	2.4
80/84	.0	.2	.7	1.2	1.9	3.8	1.0	.7	55	9.5
75/79	.0	.0	.3	1.9	4.3	13.8	12.3	4.2	213	36.9
70/74	.0	.0	.9	1.2	5.7	12.8	12.6	4.2	216	37.4
65/69	.0	.0	.0	1.2	2.2	3.3	4.5	1.4	73	12.6
60/64	.0	.0	.0	.0	.2	.3	.2	.0	4	.7
55/59	.0	.0	.0	.0	.0	.2	.0	.0	1	.2
TOTAL	0	4	18	33	84	198	180	61	578	100.0
PCT	.0	.7	3.1	5.7	14.5	34.3	31.1	10.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.2	.2	.0	.0	.0	.0
.0	.1	.2	.1	.8	.6	.3	.3	.0	.0
.9	.9	.4	1.0	1.7	2.2	1.3	.8	.0	.3
1.1	.5	1.1	2.9	9.0	8.6	9.3	3.0	.0	1.4
.6	.3	1.9	16.9	10.0	4.1	2.5	.0	.5	
.0	.0	.0	2.1	7.7	2.5	.3	.0	.0	.0
.0	.0	.0	.2	.2	.3	.0	.0	.0	.0
.0	.0	.0	.0	.1	*	.0	.0	.0	.0
2.6	2.0	2.0	8.2	36.6	24.4	15.3	6.6	.0	2.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	86	83	75	66	63	59	74.8	368
06009	87	86	84	76	70	65	64	76.3	211
12015	87	84	81	74	69	67	65	74.4	307
18021	85	80	78	73	68	66	65	73.1	216
TOT	90	86	82	75	68	65	59	74.6	1102

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	16.9	15.4	32.8	25.6	9.2	73	195		
06009	.0	14.0	24.0	39.0	18.0	5.0	71	100		
12015	.0	2.8	9.0	36.2	35.0	16.9	79	177		
18021	.0	3.4	13.4	26.9	43.7	12.6	79	119		
TOT	0	56	86	199	182	68	76	591		

AD-A044 425

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C  
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO). AUSTRAL--ETC(U)  
SEP 77

F/G 4/2

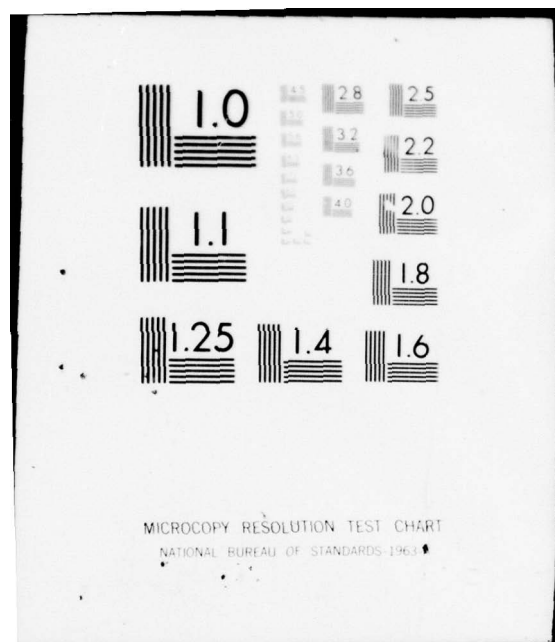
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## OCTOBER

PERIOD: (PRIMARY) 1879-1970  
(OVER-ALL) 1856-1970

AREA 0020 BARROW ISLAND  
19.75 114.3E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	N FOG	WD FOG
11/13	.0	.0	.0	.0	.0	.3	.0	1	.0	.3
9/10	.0	.0	.0	.0	.0	.6	.3	3	.0	.8
7/8	.0	.0	.3	.3	.0	.6	.3	5	.0	1.4
6	.0	.0	.0	.3	.6	.6	.0	5	.0	1.4
5	.0	.0	.3	.0	1.4	1.4	.6	13	.0	3.6
4	.0	.0	.0	.3	1.4	1.1	.6	12	.3	3.1
3	.0	.0	.0	1.7	1.7	.6	.3	15	.0	4.2
2	.0	.3	.0	.6	3.3	1.1	.0	19	.0	5.3
1	.0	.0	.6	3.3	3.6	.6	.0	29	.0	8.1
0	.0	.0	1.4	7.2	6.1	1.4	.0	58	.0	18.1
-1	.0	.3	3.1	6.7	4.7	.0	.0	33	.3	14.4
-2	.0	.3	3.3	8.1	4.2	.3	.0	58	.0	16.1
-3	.0	.8	1.9	3.9	.3	.0	.0	25	.0	6.9
-4	.0	.3	3.1	2.2	1.4	.0	.0	25	.0	6.9
-5	.0	1.4	2.5	1.4	1.1	.0	.0	23	.0	6.4
-6	.0	.3	.6	.6	.0	.0	.0	5	.0	1.4
-7/-8	.3	.0	.8	1.1	.0	.0	.0	8	.0	2.2
-9/-10	.0	.3	.0	.6	.0	.0	.0	3	.0	.8
TOTAL	1	14	64	137	107	30	7	360	2	358
PCT	.3	3.9	17.8	38.1	29.7	8.3	1.9	100.0	.6	99.4

PERIOD: (OVER-ALL) 1963-1970

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
1-2	.3	1.7	.0	.0	.0	.0	2.1	.1	.0	.5	.0	.0	.0	.6
3-4	.0	1.3	.3	.0	.0	.0	1.6	.0	1.0	.0	.0	.0	.0	1.0
5-6	.0	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	3.0	.7	.0	.0	.0	4.5	.1	1.0	.9	.5	.0	.0	2.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.5	.0	.0	.0	.0	.5	.0	.1	.0	.0	.0	.0	.1
1-2	.0	.8	.5	.0	.0	.0	1.3	.6	3.6	.1	.0	.0	.0	4.2
3-4	.0	.0	.5	.0	.0	.0	.5	.0	.1	1.4	.0	.0	.0	1.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.6
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.3	.9	.0	.0	.0	2.2	.6	3.8	1.9	.7	.0	.0	7.0

PERIOD: (OVER-ALL) 1962-1970

OCTOBER

AREA 0020 BARROW ISLAND  
19.75 114.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.7	.0	.0	.0	.0		.7	.0	.3	.0	.0	.0	.0		.3
1-2	.3	5.6	3.6	.0	.0	.0		9.5	.5	6.2	1.8	.0	.0	.0		8.5
3-4	.0	2.6	7.2	.0	.0	.0		9.9	.0	2.3	3.9	.5	.0	.0		6.7
5-6	.0	.9	6.8	1.0	.0	.0		8.7	.0	.0	2.3	.3	.0	.0		2.6
7	.0	.5	5.8	.9	.0	.0		7.2	.0	.0	1.5	.0	.0	.0		1.5
8-9	.0	.0	.9	1.7	.0	.0		2.6	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	1.3	.9	.0	.0		2.2	.0	.0	.1	.0	.0	.0		.1
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.3	.0	.0		.3	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.3	10.3	25.6	4.9	.0	.0		41.2	.5	8.8	9.6	.8	.0	.0		19.7

HGT	W							PCT	NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	2.4	.0	.0	.0	.0		2.4	.0	1.5	.0	.0	.0	.0		1.5
1-2	.0	4.5	.0	.0	.0	.0		4.5	.5	1.5	.0	.0	.0	.0		1.9
3-4	.0	2.8	1.3	.0	.0	.0		4.0	.0	.6	.0	.0	.0	.0		.6
5-6	.0	.0	1.5	.0	.0	.0		1.5	.0	.5	.6	.0	.0	.0		1.0
7	.0	.0	.5	.0	.0	.0		.5	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.0	9.6	3.2	.0	.0	.0		12.8	.5	3.4	1.1	.0	.0	.0		95.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.5	5.9	.0	.0	.0	.0	11.4	
1-2	2.3	24.1	6.4	.0	.0	.0	32.7	
3-4	.0	10.0	15.0	.5	.0	.0	25.5	
5-6	.0	1.4	11.8	1.4	.0	.0	14.5	
7	.0	.5	8.2	.9	.0	.0	9.5	
8-9	.0	.0	.9	2.3	.0	.0	3.2	
10-11	.0	.0	1.4	.9	.0	.0	2.3	
12	.0	.0	.0	.5	.0	.0	.5	
13-16	.0	.0	.0	.5	.0	.0	.5	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.7	41.8	43.6	6.8	.0	.0	100.0	220

PERIOD: (OVER-ALL) 1950-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-43	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<5	1.8	17.6	11.0	7.3	2.9	.0	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	113	3
6-7	.0	.4	7.7	8.4	9.6	3.7	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	74	5
8-9	.0	.7	3.7	5.1	2.2	5.1	1.5	.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	54	6
10-11	.0	.0	.7	1.1	1.1	.7	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	7
12-13	.0	.0	1.1	.4	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	5
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDFT	3.3	.4	.0	.0	.0	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	2
TOTAL	14	52	66	61	35	30	10	3	2	0	0	0	0	0	0	0	0	0	0	273	5
PCT	5.1	19.0	24.2	22.3	12.8	11.0	3.7	1.1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1855-1972

# NOVEMBER

AREA 0020 BARROW ISLAND  
20.15 114.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.4	.0	95.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.3	.0	89.7
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	.0	96.3
SW	.1	.0	.0	.0	.0	.0	.0	.1	.6	1.5	.0	.0	2.4	.0	95.4
W	1.0	.0	.0	.0	.0	.0	.0	1.0	.0	5.7	.0	.0	3.8	.0	89.5
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.3	.0	86.7
TOT PCT	.2	.0	.0	.0	.0	.0	.0	.2	.2	1.5	.0	.0	3.3	.0	94.9
TOT OBS:	544														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOURL (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8	.0	95.2
06009	.0	.0	.0	.0	.0	.0	.0	.0	1.2	.0	.0	.0	1.2	.0	97.6
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.2	.0	.0	2.5	.0	94.3
18021	1.2	.0	.0	.0	.0	.0	.0	1.2	.0	3.7	.0	.0	2.4	.0	92.7
TOT PCT TOT OBS:	.2 550	.0	.0	.0	.0	.0	.0	.2	.2	1.5	.0	.0	3.3	.0	94.9

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21	
N	1.3	2.0	.2	.0	.0	.0		3.5	5.1		1.4	6.2	2.4	8.2	4.5	1.3	3.1	.0
NE	1.3	1.3	.1	.0	.0	.0		2.8	4.5		2.5	5.8	3.5	5.7	1.2	2.0	.0	.0
E	.7	1.2	.3	.0	.0	.0		2.2	6.4		1.6	3.1	3.5	.0	2.6	.0	1.2	3.9
SE	1.5	2.2	1.3	.0	.0	.0		5.6	9.7		4.9	11.0	5.3	2.5	3.9	1.0	8.8	3.1
S	2.0	11.2	14.5	4.4	.0	.0		32.1	13.1		47.8	36.0	35.6	23.8	20.5	19.7	26.9	32.8
SW	2.4	11.6	16.8	2.1	.0	.0		32.8	11.8		31.3	20.8	32.6	30.7	38.5	39.8	39.6	41.4
W	1.0	5.8	4.0	1.0	.0	.0		15.8	11.7		7.2	9.3	13.5	24.2	23.0	29.6	15.4	16.4
NW	.8	2.1	.6	.0	.0	.0		3.4	7.0		1.1	4.1	3.5	4.9	4.8	5.3	1.9	2.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.8							1.8	.0		2.2	3.9	.0	.0	1.1	1.3	3.1	.0
TOT OBS	115	336	373	72	0	0		896	11.2		183	178	85	61	184	76	65	64
TOT PCT	12.8	37.5	41.6	8.0	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	2.4	1.1	.0	.0	.0			3.5	5.1		3.7	4.8	3.6	1.6
NE	2.2	.6	.0	.0	.0			2.8	4.5		4.1	4.5	1.4	.0
E	1.3	.7	.2	.0	.0			2.2	6.4		2.4	2.1	1.8	2.5
SE	2.4	2.2	.8	.3	.0			5.6	9.7		7.9	4.1	3.1	6.0
S	7.1	13.9	10.6	.5	.0			32.1	13.1		42.0	30.7	20.3	29.8
SW	7.5	17.7	7.3	.3	.0			32.8	11.8		26.1	31.8	38.8	40.5
W	3.4	9.0	3.3	.0	.0			15.8	11.7		8.2	18.0	24.9	15.9
NW	1.8	1.5	.1	.0	.0			3.4	7.0		2.6	4.1	4.9	2.1
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	1.8							1.8	.0		3.0	.0	1.2	1.6
TOT OBS	268	419	200	9	0			896	11.2		361	146	260	129
TOT PCT	29.9	46.8	22.3	1.0	.0			100.0			100.0	100.0	100.0	100.0

## NOVEMBER

PERIOD: (PRIMARY) 1927-1972  
(OVER-ALL) 1855-1972

AREA 0020 BARROW ISLAND  
20.15 114.0E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				PCT MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47	48+			
00003	3.0	18.6	39.9	34.1	4.4	.0	.0	9.4	100.0	361
00009	.0	4.1	33.6	53.4	8.9	.0	.0	12.6	100.0	146
12015	1.2	8.1	37.3	41.5	11.9	.0	.0	11.9	100.0	260
18021	1.6	3.9	35.7	49.6	9.3	.0	.0	12.8	100.0	129
TOT	16	94	336	373	72	0	0	11.2		896
PCT	1.8	11.0	37.5	41.6	8.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.8	.4	.0	.0		.8
NE	1.6	.0	.0	.0		.0
E	1.1	.3	.6	.0		2.5
SE	3.3	.5	1.6	.0		2.2
S	19.1	5.6	5.3	.8		2.3
SW	25.8	6.9	4.0	.1		1.7
W	14.3	1.2	1.3	.3		1.2
NW	2.4	.0	.1	.0		.6
VAR	.0	.0	.0	.0		.0
CALM	1.5	.0	.0	.0		.5
TOT OBS	186	39	34	3	262	1.8
TOT PCT	71.0	14.9	13.0	1.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	
.0	.0	.1	.0	.5	.0	.0	.0	.0	.0	4.5	
.0	.0	.3	.3	1.9	1.9	.4	.0	.0	.0	25.0	
.0	.0	.0	.1	.8	1.6	.0	.0	.4	.0	33.9	
.0	.0	.0	.4	.6	.7	.0	.0	.0	.0	15.6	
.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	2.4	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	
.0	.0	1	2	10	11	1	0	1	1	235	262
.0	.0	.4	.8	3.8	4.2	.4	.0	.4	.4	89.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.8	.8	.8	.8	.8	.8	.8	.8
>5000	.8	.8	.8	.8	.8	.8	.8	.8
>3500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>2000	4.9	5.3	5.3	5.3	5.3	5.3	5.3	5.3
>1000	6.8	8.7	9.1	9.1	9.1	9.1	9.1	9.1
>600	7.2	9.4	9.8	9.8	9.8	9.8	9.8	9.8
>300	7.5	9.8	10.2	10.2	10.2	10.2	10.2	10.2
>150	7.5	9.8	10.2	10.2	10.2	10.2	10.2	10.2
>0	7.5	9.8	10.2	10.2	10.2	10.2	10.2	10.2
TOTAL	20	26	27	27	27	27	27	27

TOTAL NUMBER OF OBS: 265

PCT FREQ NH &lt;5/8: 89.8

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
43.5	22.7	12.6	5.9	4.5	1.9	4.5	3.7	.7	.0	269



PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1855-1972

# NOVEMBER

AREA 0020 BARROW ISLAND  
20.15 114.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.4	.4	.0	.0	.0	.7	.7
	TOT %	.0	.0	.0	.0	.0	.4	.4	.0	.0	.0	.7	.7
2<5	PCP	.0	.0	.0	.0	.0	*	.1	.0	.0	.0	.2	.2
	NO PCP	.0	.0	.0	.0	.3	.2	.0	.0	.0	.0	.6	.6
	TOT %	.0	.0	.0	*	.3	.2	.1	.0	.0	.0	.7	.7
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.8	.0	.6	1.0	7.1	4.9	5.8	.5	.0	.2	21.0	21.0
	TOT %	.8	.0	.6	1.0	7.1	4.9	5.8	.5	.0	.2	21.0	21.0
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	3.4	3.6	1.7	4.4	24.9	27.3	8.1	1.7	.0	2.6	77.6	77.6
	TOT %	3.4	3.6	1.7	4.4	24.9	27.3	8.1	1.7	.0	2.6	77.6	77.6
TOT OBS													
TOT PCT													
		4.2	3.6	2.2	5.5	32.3	32.8	14.5	2.3	.0	2.8	100.0	544

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	4-10	.0	.1	.1	.1	.2	.5	.3	.2	.0	.0	1.4	1.4
	11-21	.0	.0	.0	.0	.2	1.1	.5	.1	.0	.0	1.8	1.8
	22+	.0	.0	.0	.0	.1	.3	.0	.0	.0	.0	.4	.4
	TOT %	.0	.1	.1	.1	.7	1.8	.8	.3	.0	.0	3.8	3.8
2<5	0-3	.0	.0	.0	*	.1	.1	.0	.0	.0	.0	.3	.3
	4-10	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0	.1	.1
	11-21	.0	.0	.0	.0	.0	*	.1	.0	.0	.0	.1	.1
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	*	.2	.2	.1	.0	.0	.0	.5	.5
5<10	0-3	.2	.0	.1	.2	.3	.7	.9	.3	.0	.3	2.9	2.9
	4-10	1.2	.3	.5	.3	2.6	2.9	3.0	1.3	.0	.0	12.1	12.1
	11-21	.0	.1	.3	.4	5.0	4.9	5.0	.1	.0	.0	15.7	15.7
	22+	.0	.0	.0	.3	1.8	.9	.7	.0	.0	.0	3.7	3.7
	TOT %	1.4	.5	.8	1.2	9.7	9.3	9.5	1.7	.0	.3	34.3	34.3
10+	0-3	1.2	1.6	.5	1.3	1.8	1.9	.2	.4	.0	1.8	10.9	10.9
	4-10	1.2	1.0	.8	1.6	8.4	7.2	3.1	.8	.0	.0	24.1	24.1
	11-21	.2	.0	.0	.3	7.5	10.9	3.6	.5	.0	.0	23.1	23.1
	22+	.0	.0	.0	.3	1.6	.9	.5	.0	.0	.0	3.3	3.3
	TOT %	2.6	2.6	1.3	3.5	19.4	20.9	7.5	1.6	.0	1.8	61.3	61.3
TOT OBS													
TOT PCT													
		4.0	3.1	2.2	4.8	30.0	32.3	17.9	3.6	.0	2.1	100.0	763

## NOVEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1855-1972AREA 0020 BARROW ISLAND  
20.15 114.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 140	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL OBS	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	1.4	5.4	8.1	.0	.0	.0	.0	14.9	85.1	74
06009	.0	.0	.0	.0	.0	5.9	.0	.0	.0	.0	5.9	94.1	68
12015	.0	.0	1.7	1.7	5.2	.0	.0	.0	1.7	.0	10.3	89.7	58
18021	.0	.0	.0	.0	4.5	1.5	1.5	.0	.0	1.5	9.0	91.0	67
TOT PCT	0 .0	0 .0	1 .4	2 .7	10 3.7	11 4.4	1 .4	0 .0	1 .4	1 .4	27 10.1	240 89.9	267 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	4.0	.0	25.7	70.3	300
06009	.0	.0	3.3	.0	30.3	66.4	122
12015	.0	.0	4.2	1.3	45.3	49.2	236
18021	.0	.0	3.4	.8	40.7	55.1	118
TOT PCT	0 .0	0 .0	30 3.9	4 .5	269 34.7	473 61.0	776 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	1.4	13.5	85.1	74
06009	.0	.0	.0	6.0	94.0	67
12015	.0	1.7	3.4	6.9	89.7	58
18021	.0	.0	1.5	7.6	90.9	66
TOT PCT	0 .0	1 .4	4 1.5	23 8.7	238 89.8	265 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.2	.2	.6	.6	.5	.0	13	2.0
85/89	.0	.0	.2	.0	1.7	1.4	.8	.0	36	5.5
80/84	.0	.0	.3	1.1	1.8	9.3	10.0	4.1	174	26.6
75/79	.0	.0	.2	.8	2.1	15.3	13.3	7.4	255	39.1
70/74	.0	.0	.0	.2	3.8	6.6	7.5	4.7	149	22.8
65/69	.0	.0	.0	.5	.5	.9	1.4	.5	24	3.7
60/64	.0	.0	.0	.0	.3	.0	.0	.0	2	.3
TOTAL	0	0	5	23	71	223	218	113	653	100.0
PCT	.0	.0	.8	3.5	10.9	34.2	33.4	17.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.1	.8	.2	.3	.7	.5	.1	.0	.0	.0
85/89	.1	.1	.0	.3	1.3	1.0	.9	.3	.0	.8
80/84	1.3	1.8	1.1	1.7	4.9	6.1	7.2	1.8	.0	.8
75/79	2.2	1.2	1.0	.9	8.2	14.0	9.5	1.8	.0	.5
70/74	.0	.0	.1	.8	10.0	9.6	1.9	.2	.0	.3
65/69	.0	.0	.0	.5	2.0	1.1	.2	.0	.0	.0
60/64	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0
TOTAL	4.4	3.1	2.5	4.7	27.0	32.3	19.7	4.0	.0	2.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	94	92	88	79	70	68	66	78.7	363
06009	90	89	86	78	72	72	67	78.4	146
12015	91	86	84	77	71	69	63	77.4	259
18021	85	82	80	75	68	67	69	75.1	130
TOT	94	90	86	78	70	68	63	77.7	898

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	6.9	13.5	35.8	33.8	10.0	77	260		
06009	.0	4.8	15.4	39.4	29.8	10.6	77	104		
12015	.0	2.0	6.4	33.5	34.5	23.6	82	203		
18021	.0	2.0	8.1	27.3	33.3	29.3	82	99		
TOT	0	29	72	229	222	114	79	666		

## NOVEMBER

PERIOD: (PRIMARY) 1922-1972  
(OVER-ALL) 1855-1972

TABLE 17

AREA 0020 BARROW ISLAND  
20.15 114.6E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WD FOG
9/10	.0	.0	.0	.0	.0	.3	.0	1	.0	.3
7/8	.0	.0	.0	.3	.3	.3	.0	3	.0	1.0
6	.0	.0	.0	.0	.0	.0	.3	1	.0	.3
5	.0	.0	.3	.3	.0	.0	.3	3	.0	1.0
4	.0	.0	.0	.3	.3	.7	.0	4	.0	1.4
3	.0	.0	.7	.7	1.4	.0	.0	8	.0	2.7
2	.3	.3	3.0	2.0	1.7	.3	.0	23	.0	7.8
1	.0	.7	1.4	1.4	1.0	.3	.0	14	.0	4.7
0	.0	.3	6.4	10.5	5.4	.0	.0	67	.0	22.6
-1	.0	.0	5.1	5.4	2.4	.0	.0	38	.0	12.8
-2	.0	2.0	7.1	8.8	2.7	.0	.0	61	.0	20.6
-3	.3	1.7	3.7	2.7	.0	.0	.0	25	.0	8.4
-4	.3	2.7	4.7	2.0	.0	.0	.0	29	.0	9.8
-5	.0	.3	1.7	1.0	.3	.0	.0	10	.0	3.4
-6	.0	.3	.0	.0	.0	.0	.0	1	.0	.3
-7/-8	.0	1.0	1.0	.7	.0	.0	.0	8	.0	2.7
TOTAL	3	28	104	107	46	6	2	296	0	296
PCT	1.0	9.5	35.1	36.1	15.5	2.0	.7	100.0		100.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.6	.0	.0	.0	.0	.6	.6	.0	.0	.0	.0	.0	1.3
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.6
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.6	.0	.0	.0	.0	.6	.6	1.3	.0	.0	.0	.0	1.9

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.6
1-2	.0	.9	.0	.0	.0	.0	.9	.0	2.3	.0	.0	.0	.0	2.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	1.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.9	.0	.0	.0	.0	.9	.6	3.6	1.1	.0	.0	.0	5.3

PERIOD: (OVER-ALL) 1963-1972

NOVEMBER

AREA 0020 BARROW ISLAND

TABLE 18 (CONT)

20.15 114.6E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	1.1	.0	.0	.0	.0		1.1	.0	.8	.0	.0	.0	.0		.8
1-2	.5	2.3	4.2	.0	.0	.0		7.0	.8	6.7	5.5	.0	.0	.0		13.0
3-4	.0	3.0	3.3	.0	.0	.0		6.3	.0	3.1	8.0	.0	.0	.0		11.1
5-6	.0	.6	4.7	1.9	.0	.0		7.2	.0	.6	7.5	.0	.0	.0		8.1
7	.0	.0	1.6	.5	.0	.0		.0	.0	.6	4.4	2.0	.0	.0		7.0
8-9	.0	.0	.9	.9	.0	.0		1.9	.0	.0	.3	.9	.0	.0		1.3
10-11	.0	.0	.0	.6	.0	.0		.6	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.5	7.0	14.7	3.9	.0	.0		26.1	.8	11.9	25.6	3.0	.0	.0		41.3

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0		.0	.6	.6	.0	.0	.0	.0		1.3	
1-2	.0	5.0	1.4	.0	.0	.0		6.4	.0	.2	.2	.0	.0	.0		.3	
3-4	.0	2.0	4.4	.0	.0	.0		6.4	.6	.0	.6	.0	.0	.0		1.3	
5-6	.0	.0	4.7	.0	.0	.0		4.7	.0	.0	.5	.0	.0	.0		.5	
7	.0	.0	.0	.6	.0	.0		.6	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	7.0	10.5	.6	.0	.0		18.1	1.3	.8	1.3	.0	.0	.0		3.3	97.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.4	3.8	.0	.0	.0	.0	8.1	
1-2	1.3	18.1	11.3	.0	.0	.0	30.6	
3-4	.6	9.4	16.9	.0	.0	.0	26.9	
5-6	.0	1.3	17.5	1.9	.0	.0	20.6	
7	.0	.6	6.3	3.1	.0	.0	10.0	
8-9	.0	.0	1.3	1.9	.0	.0	3.1	
10-11	.0	.0	.0	.6	.0	.0	.6	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	6.3	33.1	53.1	7.5	.0	.0	100.0	160

PERIOD: (OVER-ALL) 1949-1972

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	2.2	10.4	10.0	3.5	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	63
6-7	.0	3.0	8.2	6.5	9.5	4.8	.9	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	77
8-9	.0	.0	.9	10.4	9.1	7.4	3.0	.4	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	74
10-11	.0	.0	.0	.4	.9	.9	.4	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>13	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
INDET	1.7	.0	.0	.9	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8
TOTAL	9	31	44	50	49	31	11	4	2	0	0	0	0	0	0	0	0	0	0	0	231
PCT	3.9	13.4	19.0	21.6	21.2	13.4	4.8	1.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

## DECEMBER

PERIOD: (PRIMARY) 1920-1969  
(OVER-ALL) 1855-1969AREA 0020 BARROW ISLAND  
19.65 114.3E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZ PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	BLWG DUST	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
NE	.0	14.0	.0	.0	.0	.0	.0	14.0	.0	.0	.0	.0	9.3	.0	76.7
E	.0	15.6	.0	.0	.0	.0	.0	15.6	.0	.0	.0	.0	3.1	.0	81.3
SE	.0	2.8	.0	.0	.0	.0	.0	2.8	2.8	8.3	.0	.0	4.9	.0	81.3
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	1.6	.0	97.4
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	3.6	.0	95.9
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	.0	.0	5.5	.0	93.2
NW	4.7	.0	.0	.0	.0	.0	.0	4.7	.0	9.4	.0	.0	7.1	.0	83.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.1	.0	88.9
TOT PCT	.2	.8	.0	.0	.0	.0	.0	1.0	.2	1.5	.0	.0	3.5	.0	94.0
TOT OBS:	504														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZ PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	BLWG DUST	
00003	.0	.8	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	5.8	.0	93.4
06009	.0	1.1	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	1.1	.0	97.9
12015	.0	1.1	.0	.0	.0	.0	.0	1.1	.0	1.7	.0	.0	3.4	.0	93.8
18021	1.0	.0	.0	.0	.0	.0	.0	1.0	1.0	6.1	.0	.0	.0	.0	92.9
TOT PCT	.2	.8	.0	.0	.0	.0	.0	1.0	.2	1.5	.0	.0	3.4	.0	94.1
TOT OBS:	509														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	.2	1.6	.2	.0	.0	.0		2.0	7.8		1.0	2.6	4.8	.0	3.0	.0	.0
NE	.7	.4	.2	.2	.1	.0		1.6	9.3		.6	4.0	2.6	.0	.3	5.1	.0
E	.8	.8	.3	.3	.1	.0		2.3	9.9		2.1	4.3	.5	2.7	1.9	.0	2.5
SE	1.3	2.5	1.9	.1	.1	.0		5.9	9.0		4.9	12.2	6.9	5.4	1.2	2.6	4.9
S	2.7	12.8	14.2	3.0	.0	.0		32.7	12.2		44.4	27.5	38.0	34.5	26.9	23.1	38.3
SW	2.0	15.9	17.6	1.8	.0	.0		37.3	11.7		35.7	31.2	36.0	43.9	42.8	39.7	33.6
W	1.0	7.1	4.6	.2	.0	.0		12.9	10.0		8.2	10.6	7.4	9.5	20.1	19.2	15.1
NW	.0	.0	.0	.0	.0	.0		3.3	7.9		1.4	3.3	3.8	1.4	3.8	7.7	3.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0
CALM	2.0							2.0	.0		1.7	4.4	.0	2.7	.0	2.6	2.5
TOT OBS	95	365	331	49	2	0	842		10.9		177	182	98	37	185	39	81
TOT PCT	11.3	43.3	39.3	5.8	.2	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	.6	1.4	.0	.0	.0		2.0	7.8	1.8	3.5	2.5	.0
NE	1.0	.3	.1	.4	.0		1.6	9.3	2.3	1.9	1.1	.0
E	1.2	.7	.1	.4	.0		2.3	9.9	3.2	1.1	1.6	2.0
SE	2.7	2.4	.7	.2	.0		5.9	9.0	8.6	6.5	1.5	5.2
S	7.3	17.5	7.3	.7	.0		32.7	12.2	35.8	17.0	26.2	30.8
SW	7.2	22.4	7.4	.3	.0		37.3	11.7	33.4	18.1	42.3	38.7
W	3.7	7.8	1.3	.1	.0		12.9	10.0	9.4	8.0	20.0	15.9
NW	1.6	1.4	.1	.1	.0		3.3	7.9	2.4	3.1	4.5	4.0
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	2.0						2.0	.0	3.1	.7	.4	3.2
TOT OBS	229	454	143	16	0	842		10.9	359	135	224	124
TOT PCT	27.2	53.4	17.0	1.9	.0		100.0		100.0	100.0	100.0	100.0



## DECEMBER

PERIOD: (PRIMARY) 1920-1969  
(OVER-ALL) 1855-1969AREA 0020 BARROW ISLAND  
19.65 114.3E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	3.1	15.3	47.1	29.8	4.5	.3	.0	.0	9.5	100.0	359
06009	.7	.7	37.8	57.0	3.0	.7	.0	.0	12.2	100.0	135
12015	.4	7.6	42.4	41.1	8.5	.0	.0	.0	11.9	100.0	224
18021	3.2	4.0	40.3	44.4	8.1	.0	.0	.0	12.1	100.0	124
TOT	17	78	365	331	49	2	0	0	10.9		842
PCT	2.0	9.3	43.3	39.3	5.8	.2	.0	.0		100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL OBS	MEAN CLOUD COVER
N	1.0	.0	.2	.0		1.6
NE	.5	.0	.3	.0		2.4
E	.6	.3	.3	.3		4.0
SE	2.6	.9	1.4	.3		3.3
S	22.2	7.1	8.1	.3		2.4
SW	20.8	8.7	5.9	.6		2.4
W	8.2	1.9	2.2	.7		2.3
NW	2.0	.3	1.0	.0		2.7
VAR	.0	.0	.0	.0		.0
CALM	.9	.3	.0	.0		1.0
TOT OBS	187	62	67	7	318	2.4
TOT PCT	58.8	19.5	19.5	2.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	
.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.5
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	1.2
.0	.0	.0	.0	.3	.7	.0	.0	.0	.0	.0	4.2
.0	.0	.0	.0	1.7	2.3	.3	.0	.0	.0	.0	33.4
.0	.0	.3	.7	1.2	.6	.0	.0	.0	.0	.0	33.1
.0	.0	.0	.2	.6	.8	.3	.0	.0	.0	.0	11.1
.0	.0	.0	.0	.6	.3	.0	.1	.0	.0	.0	2.4
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3
.0	0	1	3	14	16	2	1	0	1	280	318
.0	.0	.3	.9	4.4	5.0	.6	.3	.0	.3	88.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.3	.3	.3	.3	.3	.3	.3	.3
>4000	.6	.6	.6	.6	.6	.6	.6	.6
>3500	.9	1.3	1.3	1.3	1.3	1.3	1.3	1.3
>3000	4.7	6.3	6.3	6.3	6.3	6.3	6.3	6.3
>2500	8.2	10.8	10.8	10.8	10.8	10.8	10.8	10.8
>2000	8.9	11.7	11.7	11.7	11.7	11.7	11.7	11.7
>1500	9.2	12.0	12.0	12.0	12.0	12.0	12.0	12.0
>1000	9.2	12.0	12.0	12.0	12.0	12.0	12.0	12.0
>500	9.2	12.0	12.0	12.0	12.0	12.0	12.0	12.0
TOTAL	29	38	38	38	38	38	38	38

TOTAL NUMBER OF OBS: 316

PCT FREQ NH &lt;5/8: 88.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	UBSCD	TOTAL OBS
32.7	25.1	13.5	10.7	5.2	4.9	4.0	3.1	.9	.0	327

PERIOD: (PRIMARY) 1920-1969  
(OVER-ALL) 1855-1969

DECEMBER

AREA 0020 BARROW ISLAND  
19.65 114.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.1	.2	.5	.2	.2	.1	.0	.0	.0	1.3
	TOT %	.0	.0	.1	.2	.5	.2	.2	.1	.0	.0	.0	1.3
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.4	.7	.0	.0	.0	.0	.0	1.2
	TOT %	.0	.0	.0	.0	.4	.7	.0	.0	.0	.0	.0	1.2
5<10	PCP	.0	.2	.4	.2	.0	.0	.0	.2	.0	.0	.0	1.0
	NO PCP	.0	.3	.4	.5	2.7	5.3	3.4	.7	.0	.0	.0	13.3
	TOT %	.0	.6	.8	.7	2.7	5.3	3.4	.8	.0	.0	.0	14.3
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	2.4	1.2	1.7	5.1	31.5	28.1	9.2	2.6	.0	1.5	.0	83.3
	TOT %	2.4	1.2	1.7	5.1	31.5	28.1	9.2	2.6	.0	1.5	.0	83.3
TOT OBS													603
TOT PCT		2.4	1.8	2.7	6.0	35.1	34.3	12.9	3.5	.0	1.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.2
	4-10	.0	.0	.1	.1	.4	.2	.1	.1	.0	.0	1.0	.5
	11-21	.0	.0	.0	.2	.2	.2	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.1	.2	.6	.4	.2	.1	.0	.0	1.6	.5
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.2
	11-21	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.5	.5
	22+	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.4	.7	.0	.0	.0	.0	1.1	.7
5<10	0-3	.0	.2	.2	.0	.1	.4	.0	.0	.0	.0	.8	.8
	4-10	.0	.0	.0	.2	1.1	3.0	2.3	.6	.0	.0	7.2	7.2
	11-21	.0	.0	.2	.3	1.4	1.6	1.0	.2	.0	.0	4.6	4.6
	22+	.0	.4	.5	.2	.0	.2	.0	.0	.0	.0	1.3	1.3
	TOT %	.0	.6	.8	.8	2.6	5.1	3.3	.8	.0	.0	13.9	13.9
10+	0-3	.3	.8	.8	1.6	3.5	2.1	.8	.5	.0	1.4	11.8	11.8
	4-10	1.8	.2	.9	2.4	11.3	10.4	4.1	1.7	.0	.0	32.7	32.7
	11-21	.2	.2	.0	1.1	14.2	14.8	3.9	.4	.0	.0	34.8	34.8
	22+	.0	.0	.0	.0	3.1	.9	.0	.0	.0	.0	4.0	4.0
	TOT %	2.4	1.2	1.7	5.1	32.0	28.2	8.8	2.5	.0	1.4	83.4	83.4
TOT OBS													625
TOT PCT		2.4	1.8	2.6	6.2	35.6	34.3	12.4	3.4	.0	1.4	100.0	

PERIOD: (PRIMARY) 1920-1969  
(OVER-ALL) 1855-1969

DECEMBER

AREA 0020 BARROW ISLAND  
19.65 114.3E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	2.4	7.3	8.5	1.2	.0	.0	1.2	20.7	79.3	82
06009	.0	.0	1.2	.0	4.7	4.7	.0	1.2	.0	.0	11.6	88.4	86
12015	.0	.0	.0	1.3	1.3	2.6	.0	.0	.0	.0	5.3	94.7	76
18021	.0	.0	.0	.0	3.8	3.8	1.3	.0	.0	.0	8.9	91.1	79
TOT	0	0	1	3	14	16	2	1	0	1	38	285	323
PCT	.0	.0	.3	.9	4.3	5.0	.6	.3	.0	.3	11.8	88.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	1.2	.0	8.5	90.3	247
06009	.0	.0	1.0	.0	6.0	93.0	100
12015	.0	.0	2.8	3.9	25.4	68.0	181
18021	.0	.0	1.0	.0	18.4	80.6	103
TOT	0	0	10	7	92	522	631
PCT	.0	.0	1.6	1.1	14.6	82.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	2.4	18.3	79.3	82
06009	.0	1.2	1.2	10.7	88.1	84
12015	.0	.0	1.4	4.1	94.5	73
18021	.0	.0	.0	9.1	90.9	77
TOT	0	1	4	34	278	316
PCT	.0	.3	1.3	10.8	88.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
05/99	.0	.0	.4	.0	.2	.0	.0	.0	3	.6
06/94	.0	.2	.4	1.0	1.9	.0	.8	.0	21	4.4
08/89	.0	.0	1.0	2.1	2.5	2.3	3.4	.6	57	11.9
09/84	.0	.0	.8	1.5	5.0	10.5	10.1	5.5	159	33.3
10/79	.0	.0	.0	1.0	4.2	13.2	14.3	5.2	181	37.9
11/74	.0	.0	.0	.6	2.3	4.0	2.9	1.3	53	11.1
12/69	.0	.0	.0	.0	.2	.2	.0	.2	3	.6
TOTAL	0	1	13	30	78	144	150	61	477	100.0
PCT	.0	.2	2.7	6.3	16.4	30.2	31.4	12.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.0	.0	.2	.2	.0	.0	.1	.0	.0
.2	.0	.6	.2	1.7	1.2	.6	.0	.0	.0
.2	.6	.6	2.0	4.7	2.1	1.0	.4	.0	.2
1.4	.9	1.2	3.1	7.5	10.8	5.5	2.3	.0	.6
.0	.2	.2	1.2	16.4	12.5	5.8	1.0	.0	.6
.0	.0	.0	.0	6.1	4.5	.5	.0	.0	.0
.0	.0	.0	.2	.4	.0	.0	.0	.0	.0
2.0	1.8	2.6	6.9	37.1	31.2	13.4	3.7	.0	1.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	98	94	90	81	73	70	66	80.9	347
06009	88	87	86	80	75	72	68	80.0	127
12015	96	90	88	80	74	73	73	80.0	218
18021	83	82	82	77	72	70	70	77.3	122
TOT	98	93	88	80	73	70	66	80.0	814

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	13.3	17.4	27.7	29.2	12.3	75	195
06009	.0	1.4	32.9	31.4	27.1	7.1	75	70
12015	.0	11.3	10.6	29.8	33.3	14.9	77	141
18021	.0	1.3	7.9	34.2	39.5	17.1	81	76
TOT	0	44	78	144	153	63	77	482

PERIOD: (PRIMARY) 1920-1969  
(OVER-ALL) 1955-1969

# DECEMBER

AREA 0020 BARROW ISLAND  
19.6S 114.3E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WD FOG
9/10	.0	.0	.0	.3	.0	.6	.0	3	.0	.9
7/8	.0	.0	.0	.0	.6	.3	.3	4	.0	1.2
6	.0	.0	.3	.6	.9	.6	.0	8	.0	2.4
5	.0	.0	.0	.6	.9	.3	.0	6	.0	1.8
4	.0	.0	.6	1.2	1.8	1.2	.0	16	.0	4.8
3	.0	.0	.3	.3	1.2	.0	.0	6	.0	1.8
2	.0	.0	.6	3.0	2.7	1.2	.0	25	.0	7.5
1	.0	.0	2.7	3.0	4.5	.3	.0	35	.0	10.5
0	.3	.3	4.5	4.5	4.2	.3	.0	47	.0	14.1
-1	.0	.0	4.8	7.5	3.0	.0	.0	51	.0	15.3
-2	.0	.6	4.8	6.3	3.3	.0	.0	50	.0	15.0
-3	.3	.9	3.9	3.9	3.3	.0	.0	41	.0	12.3
-4	.0	.9	1.5	1.5	1.2	.0	.0	17	.0	5.1
-5	.0	.0	2.4	1.8	.3	.0	.0	15	.0	4.5
-6	.0	.0	.0	.3	.0	.0	.0	1	.0	.3
-7/-8	.0	.0	1.2	1.5	.0	.0	.0	9	.0	2.7
TOTAL	2	9	92	121	93	16	1	334	0	334
PCT	.6	2.7	27.5	36.2	27.8	4.8	.3	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.2	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.5	.0	.0	.0	.5	.0	.0	.5	.0	.0	.0	.5
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.2	.5	.0	.0	.0	1.7	.0	.0	.5	.0	.0	.0	.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.0	.0	.0	.0	.0	.5	1.0	1.1	.0	.0	.0	.0	2.1
1-2	.0	1.8	.0	.0	.0	.0	1.8	.0	.7	1.0	.0	.0	.0	1.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.6	2.1	.0	.0	.0	2.7
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	1.8	.0	.0	.0	.0	2.3	1.0	2.4	3.0	.0	.0	.0	6.4

PERIOD: (OVER-ALL) 1963-1969

DECEMBER

AREA 0020 BARROW ISLAND  
19.65 114.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.4	.8	.0	.0	.0	.0	1.2	1.1	.0	.0	.0	.0	.0	1.7
1-2	.0	3.9	3.0	.0	.0	.0	6.9	.0	5.5	1.9	.0	.0	.0	7.4
3-4	.0	2.4	7.5	.5	.0	.0	10.4	.0	5.2	8.6	.0	.0	.0	13.8
5-6	.0	.0	5.5	2.3	.0	.0	7.8	.0	.5	7.9	.6	.0	.0	9.0
7	.0	.0	.8	.5	.0	.0	1.3	.0	.0	5.0	.0	.0	.0	5.0
8-9	.0	.0	.7	1.5	.0	.0	2.2	.0	.0	.7	.5	.0	.0	1.2
10-11	.0	.0	.0	.5	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.4	7.2	17.6	5.2	.0	.0	30.3	1.1	11.8	24.2	1.1	.0	.0	38.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.5	1.7	.0	.0	.0	.0	2.2	.0	.8	.0	.0	.0	.0	.8	
1-2	.0	2.5	3.2	.0	.0	.0	5.7	.5	1.1	.1	.0	.0	.0	1.7	
3-4	.0	1.3	3.2	.0	.0	.0	4.5	.0	.6	.5	.0	.0	.0	1.1	
5-6	.0	.5	1.7	.0	.0	.0	2.2	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.5	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.5	6.1	8.5	.0	.0	.0	15.0	.5	2.3	.6	.0	.0	.0	3.6	98.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	5.3	5.3	.0	.0	.0	.0	11.7	
1-2	.5	15.5	9.2	.0	.0	.0	25.2	
3-4	.0	10.2	22.8	.5	.0	.0	33.5	
5-6	.0	1.0	15.0	2.9	.0	.0	18.9	
7	.0	.0	5.8	.5	.0	.0	6.3	
8-9	.0	.0	1.9	1.9	.0	.0	3.9	
10-11	.0	.0	.0	.5	.0	.0	.5	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	5.8	33.0	54.9	6.3	.0	.0	100.0	206

PERIOD: (OVER-ALL) 1950-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT	
<6	4.5	9.0	7.9	7.1	1.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	81	3
6-7	.0	.4	5.7	7.1	7.5	8.2	.7	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	84	6
8-9	.0	.4	1.5	7.1	7.9	4.9	1.5	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	64	7
10-11	.0	.4	1.9	.0	.7	1.9	1.1	1.1	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	8
12-13	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	8
>13	.0	.0	.0	.0	.4	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	12
INDET	1.5	.0	1.5	.0	.4	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	3
TOTAL	16	27	53	57	50	41	11	5	7	0	0	0	0	0	0	0	0	0	0	0	267	5
PCT	6.0	10.1	19.9	21.3	18.7	15.4	4.1	1.9	2.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1877-1972  
(OVER-ALL) 1855-1972

# ANNUAL

AREA 0070 BARROW ISLAND  
19.95 114.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	2.3	1.6	.0	.0	.0	.0	.0	3.9	.5	1.8	1.1	.0	1.3	.0	91.8
NE	2.0	2.1	.2	.0	.0	.0	.0	4.3	1.3	2.3	.3	.0	2.3	.0	89.5
E	2.4	2.0	.8	.0	.0	.0	.0	5.3	.7	.4	.1	.0	.9	.0	92.7
SE	2.2	1.1	.8	.0	.0	.0	.1	4.3	1.5	1.5	.1	.0	1.2	.0	91.6
S	.6	.3	.2	.0	.0	.0	.0	1.1	.1	.7	.1	.0	1.9	.0	96.2
SW	1.0	.6	.4	.0	.0	.0	.0	1.8	.3	1.0	.4	.0	1.9	.0	94.7
W	1.1	.4	.1	.0	.0	.0	.0	1.5	.1	2.0	.3	.0	2.7	.0	93.4
NW	2.4	1.0	.0	.0	.0	.0	.0	3.4	1.0	3.1	.2	.0	3.7	.2	88.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	1.2	.0	.0	.0	.0	.0	.0	1.2	.0	.7	.3	.0	5.5	.0	92.3
TOT PCT	1.1	.6	.3	.0	.0	.0	*	2.0	.3	1.1	.2	.0	2.1	*	94.2
TOT OBS:	7350														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	1.2	.7	.2	.0	.0	.0	.0	2.1	.2	.1	.1	.0	2.2	.0	95.2
06009	.6	.3	.4	.0	.0	.0	.1	1.3	.7	.1	.5	.0	2.8	.1	94.7
12015	1.1	.7	.2	.0	.0	.0	.0	1.9	.2	2.0	.2	.0	2.3	.0	93.4
18021	1.5	.9	.2	.0	.0	.0	.0	2.6	.4	3.0	.2	.0	.8	.0	93.2
TOT PCT	1.1	.6	.3	.0	.0	.0	*	2.0	.3	1.1	.2	.0	2.1	*	94.2
TOT OBS:	7460														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.8	1.8	.6	*	.1	.0		3.3	7.6		2.3	3.5	3.7	4.9	4.5	2.8	1.4	2.1
NE	1.0	2.8	1.5	.2	*	.0		5.4	8.9		3.4	6.9	6.2	9.2	6.1	4.8	4.1	2.8
E	1.1	4.8	4.1	1.0	.1	.0		11.1	10.8		10.9	13.3	14.6	12.9	8.8	10.0	9.5	10.2
SE	1.4	6.8	6.6	1.3	.2	.0		16.3	11.5		19.6	19.8	15.3	13.9	11.5	12.9	16.9	19.1
S	1.8	11.0	10.8	2.1	.1	.0		25.8	11.7		32.2	24.7	26.7	18.9	22.3	21.3	28.6	25.9
SW	2.0	9.8	8.4	1.0	.1	.0		21.3	10.1		20.3	17.6	19.2	18.9	25.4	24.3	21.2	23.3
W	.9	5.2	3.3	.5	.1	.0		10.0	9.0		6.7	7.8	8.4	12.8	13.1	14.4	9.7	10.5
NW	.7	2.7	.9	.1	*	.0		4.4	7.7		2.5	3.7	4.1	7.3	5.8	6.7	2.8	4.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.5							2.5	.0		2.0	2.7	1.7	1.2	2.4	2.9	5.7	1.4
TOT OBS							13468		10.7		2870	2194	1232	1007	2901	988	1126	1150
TOT PCT	12.0	44.8	36.1	6.4	.6	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	1.8	1.2	.2	.1	*			3.3	7.6		2.9	4.3	4.0	1.8
NE	2.3	2.4	.6	.1	*			5.4	8.9		5.0	7.7	5.8	3.4
E	3.2	5.0	2.5	.4	*			11.1	10.8		11.9	13.7	9.1	9.9
SE	4.2	7.8	3.9	.4	*			16.3	11.5		19.8	14.7	11.8	18.1
S	6.2	13.3	5.9	.8	*			25.8	11.7		28.8	23.3	22.1	27.5
SW	6.0	11.8	3.3	.2	*			21.3	10.1		19.1	19.1	25.2	22.1
W	3.3	5.1	1.4	.2	*			10.0	9.0		7.2	10.1	13.5	10.1
NW	2.1	1.9	.3	*	*			4.4	7.7		3.0	5.5	6.0	3.6
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	2.5							2.5	.0		2.3	1.5	2.5	3.6
TOT OBS						13468			10.7		5064	2239	3889	2276
TOT PCT	31.5	48.6	18.1	1.7	.2			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1877-1972  
(OVER-ALL) 1859-1972

# ANNUAL

AREA 0070 BARROW ISLAND  
19.95 114.06

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
00003	2.3	13.3	44.4	33.5	5.9	.6	.0	10.2	100.0	5064
06009	1.5	4.7	42.2	44.6	6.1	.9	.0	11.7	100.0	2239
12015	2.5	9.4	47.4	33.6	6.2	.6	.0	10.5	100.0	3889
18021	3.6	5.4	43.8	38.5	8.2	.6	.0	11.4	100.0	2276
TOT								10.7		13468
PCT	2.5	9.5	44.8	36.1	6.4	.6	.0	10.0		

TABLE 5

## PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.8	.4	.6	.2		2.2
NE	3.1	.6	.8	.4		2.3
E	6.4	1.2	2.1	.9		3.0
SE	10.6	1.7	2.6	1.1		2.6
S	17.3	4.2	4.3	1.0		2.2
SW	13.0	3.7	3.1	.6		2.2
W	6.4	1.5	1.5	.7		2.0
NW	2.2	.7	.9	.3		2.5
VAR	.0	.0	.0	.0		.0
CALM	2.8	.2	.3	.1		1.4
TOT OBS					3822	2.2
TOT PCT	64.1	14.2	16.2	5.5	100.0	

TABLE 6

## PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8) AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	*	.2	.1	*	*	.0	*	2.5	
.0	.0	.0	.1	.4	.5	.1	*	.0	*	4.0	
.0	.0	.0	.2	.7	.7	.1	.1	*	*	9.0	
*	.0	*	.5	.8	.7	.1	.1	*	*	13.5	
.0	.0	.1	.3	1.4	1.2	.2	*	.1	.2	23.4	
.0	.0	.1	.2	.8	.8	.2	*	.1	.1	18.1	
.0	.0	*	.3	.6	.3	.1	.0	.0	.1	8.6	
.0	.0	*	.2	.2	.2	*	*	*	*	3.4	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	*	.1	*	.0	.0	.0	.1	3.2	
*	.0	.2	1.9	5.4	4.4	.9	.3	.2	1.0	85.7	3822
											100.0

TABLE 7

## CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	> 10	> 5	> 2	> 1	> 1/2	> 1/4	> 50 YD	> 0
* OR > 500	1.1	1.2	1.2	1.2	1.2	1.2	1.2	1.2
* OR > 1000	1.3	1.4	1.5	1.5	1.5	1.5	1.5	1.5
* OR > 1500	2.1	2.3	2.4	2.4	2.4	2.4	2.4	2.4
* OR > 2000	5.9	6.6	6.8	6.8	6.8	6.8	6.8	6.8
* OR > 10000	9.9	11.7	12.1	12.1	12.1	12.1	12.1	12.1
* OR > 600	11.1	13.4	14.0	14.1	14.1	14.1	14.1	14.1
* OR > 300	11.2	13.6	14.1	14.3	14.3	14.3	14.3	14.3
* OR > 150	11.2	13.6	14.1	14.3	14.3	14.3	14.3	14.3
* OR > 0	11.2	13.6	14.2	14.3	14.3	14.3	14.3	14.3

TOTAL NUMBER OF OBS: 3865

PCT FREQ NH < 5/8: 85.7

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
38.8	22.0	11.8	7.6	4.8	3.9	3.5	3.3	4.2	4051

PERIOD: (PRIMARY) 1877-1972  
(OVER-ALL) 1855-1972

ANNUAL

AREA 0020 BARROW ISLAND  
19.95 114.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	*	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	*	
1/2<1	PCP	.0	.0	.0	*	.0	.0	.0	.0	.0	.0	*	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	.0	
	TOT %	.0	.0	.0	*	.0	.0	.0	*	.0	.0	*	
1<2	PCP	*	*	.0	*	.1	*	.0	*	.0	.0	.2	
	NO PCP	.0	.0	*	.1	.1	.1	.1	.1	.0	.0	.4	
	TOT %	*	*	*	.1	.1	.1	.1	.1	.0	.0	.6	
2<5	PCP	*	*	.1	.1	*	*	*	*	.0	*	.3	
	NO PCP	.1	.1	.1	.2	.6	.6	.1	.1	.0	*	1.9	
	TOT %	.2	.1	.2	.3	.6	.6	.2	.1	.0	*	2.2	
5<10	PCP	.1	.1	.2	.1	*	.1	.1	.1	.0	*	.9	
	NO PCP	.7	1.0	2.1	2.2	3.8	3.5	2.3	1.0	.0	.3	16.8	
	TOT %	.8	1.1	2.3	2.3	3.9	3.5	2.4	1.1	.0	.3	17.7	
10+	PCP	*	*	.1	.2	.1	.1	*	.1	.0	.0	.7	
	NO PCP	2.7	4.1	8.1	12.0	22.6	17.3	6.6	2.6	.0	2.6	78.8	
	TOT %	2.7	4.2	8.2	12.1	22.8	17.4	6.7	2.7	.0	2.6	79.5	
TOT OBS													7347
TOT PCT		3.7	5.5	10.7	14.8	27.4	21.7	9.3	3.9	.0	3.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	*	*	.0	*	*	
	4-10	*	*	*	*	.0	*	.0	*	.0	*	.1	
	11-21	.0	*	*	.0	.0	.0	.0	.0	.0	*	*	
	22+	.0	.0	.0	*	.0	.0	.0	.0	.0	*	*	
	TOT %	*	*	*	*	.0	*	*	*	.0	*	.2	
1/2<1	0-3	.0	*	.0	.0	.0	.0	.0	.0	.0	*	*	
	4-10	*	*	.0	*	*	*	.0	.0	.0	*	.1	
	11-21	.0	*	.0	*	*	*	.0	.0	.0	*	.1	
	22+	.0	.0	.0	.0	*	*	*	*	.0	*	.1	
	TOT %	*	*	.0	*	*	.1	*	*	.0	*	.2	
1<2	0-3	*	*	*	*	*	*	*	*	.0	*	.2	
	4-10	.1	.1	.1	.1	.2	.3	.3	.1	.0	*	1.3	
	11-21	*	.1	.1	.1	.2	.4	.2	.1	.0	*	1.2	
	22+	.0	*	*	*	.2	.1	*	.0	.0	*	.4	
	TOT %	.1	.2	.2	.2	.7	.9	.5	.2	.0	*	3.2	
2<5	0-3	.1	*	.0	*	*	.1	*	*	.0	*	.3	
	4-10	*	*	.1	.1	.3	.2	*	*	.0	*	.8	
	11-21	*	*	*	*	.1	.1	*	*	.0	*	.4	
	22+	*	*	*	*	.1	*	*	*	.0	*	.3	
	TOT %	.1	.1	.1	.2	.5	.4	.1	.1	.0	*	1.7	
5<10	0-3	.2	.4	.3	.2	.3	.5	.4	.2	.0	.7	3.3	
	4-10	.7	1.3	1.6	1.9	2.9	2.9	2.1	1.2	.0	*	14.7	
	11-21	.2	.6	1.2	1.7	3.0	2.6	1.4	.4	.0	*	11.2	
	22+	.1	.1	.4	.5	.7	.3	.1	*	.0	*	2.2	
	TOT %	1.2	2.5	3.5	4.3	6.9	6.3	4.1	1.9	.0	.7	31.4	
10+	0-3	.6	.7	.7	1.1	1.6	1.5	.6	.5	.0	2.0	9.4	
	4-10	1.2	1.6	2.9	4.4	7.6	6.6	3.2	1.5	.0	*	29.2	
	11-21	.4	.8	2.2	3.2	7.5	5.7	1.9	.4	.0	*	22.0	
	22+	*	.1	.5	.5	1.3	.4	.1	*	.0	*	2.9	
	TOT %	2.3	3.2	6.3	9.2	18.0	14.2	5.8	2.4	.0	2.0	63.4	
TOT OBS													10478
TOT PCT		3.8	6.1	10.1	14.1	26.1	22.0	10.5	4.6	.0	2.8	100.0	

PERIOD: (PRIMARY) 1877-1972  
(OVER-ALL) 1855-1972

ANNUAL

AREA 0020 BARROW ISLAND  
19.95 114.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.1	.0	.1	2.5	6.2	5.5	1.1	.3	.4	1.2	17.4	82.6	1042
06009	.0	.0	.1	1.7	4.7	4.8	.3	.4	.1	1.4	13.6	86.4	958
12015	.0	.0	.2	1.7	4.3	2.9	.8	.3	.1	.4	10.8	89.2	1015
18021	.0	.0	.3	1.5	5.6	3.7	1.3	.1	.1	1.0	13.6	86.4	985
TOT PCT	*	.0	.2	1.8	5.2	4.3	.9	.3	.2	1.0	13.8	86.2	4000 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.3	.2	2.5	1.0	27.5	68.5	4033
06009	.1	.0	3.4	.6	27.9	68.0	1678
12015	.1	.4	4.8	3.4	39.8	51.6	3254
18021	.1	.2	1.9	.8	33.0	63.9	1791
TOT PCT	.2	.2	3.2	1.6	32.1	62.7	10756 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH > 4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.1	.3	3.4	14.7	81.9	1000
06009	.0	.1	2.6	11.7	85.7	939
12015	.0	.2	3.0	8.8	88.2	974
18021	.0	.3	2.8	11.6	85.7	952
TOT PCT	*	.2	2.9	11.7	85.3	3865 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.1	*	*	*	.0	.0	.2	
90/94	*	.1	.1	.4	.5	.4	.1	*	1.6	
85/89	.0	.1	.4	1.0	1.8	3.4	2.2	.5	9.4	
80/84	*	.1	.5	1.3	3.7	7.4	9.0	3.3	25.5	
75/79	.0	.1	.8	2.4	4.0	4.2	7.6	3.5	27.6	
70/74	*	.1	1.4	3.0	5.4	5.7	5.5	2.4	23.6	
65/69	.0	.1	.5	1.7	2.1	2.5	2.1	.9	9.9	
60/64	.0	.0	.1	.3	.5	.5	.4	.2	2.0	
55/59	.0	.0	.0	.0	*	.1	*	.1	.2	
50/54	.0	.0	.0	.0	.0	.0	*	.0	*	
TOTAL PCT	.1	.6	3.8	10.2	18.0	29.3	27.1	10.9	7948 100.0	

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	*	*	*	*	*	*	*	*	.0	*
90/94	.1	.1	.2	.1	.4	.3	.1	.1	.0	*
85/89	.7	.7	.6	.9	1.5	1.9	1.8	.9	.0	.4
80/84	1.3	1.7	2.2	2.8	4.5	5.9	4.3	2.1	.0	.8
75/79	1.1	1.7	2.8	3.3	7.2	6.3	3.2	1.3	.0	.6
70/74	.7	1.5	2.7	3.5	7.0	5.1	1.8	.7	.0	.7
65/69	.1	.5	1.2	2.7	3.2	1.6	.3	.1	.0	.3
60/64	.0	*	.3	.7	.5	.4	*	*	.0	*
55/59	.0	.0	*	*	.1	*	*	*	.0	.0
50/54	.0	*	*	.0	.0	.0	.0	.0	.0	.0
TOTAL	4.0	6.2	10.0	14.1	24.5	21.6	11.7	5.2	.0	2.9

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	98	89	85	78	69	66	52	77.2	5007
06009	96	87	85	79	71	62	62	78.3	2197
12015	98	86	83	77	71	69	56	76.9	3872
18021	91	82	81	76	70	67	58	75.3	2260
TOT	98	88	84	77	70	67	52	77.0	13336

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.1	18.1	18.0	29.4	24.4	10.1	73	2999		
06009	.1	18.3	25.6	30.3	20.0	5.7	70	1290		
12015	.0	10.5	15.6	29.3	30.9	13.8	76	2505		
18021	.0	10.6	15.3	27.6	32.7	13.7	76	1409		
TOT	5	1241	1515	2377	2173	892	74	8203		

PERIOD: (PRIMARY) 1877-1972  
(OVER-ALL) 1855-1972

ANNUAL

AREA 0020 BARROW ISLAND  
19.95 114.68

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	57 60	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT FOG	WD FOG
14/16	.0	.0	.0	.0	.0	.0	*	*	*	.0	3	.0
11/13	.0	.0	.0	.0	.0	*	.1	.1	.1	.1	20	.0
9/10	.0	.0	.0	.0	*	.1	.1	.2	.1	.0	28	*
7/8	.0	.0	.0	.1	.2	.1	.7	.2	.3	*	71	*
6	.0	.0	.0	.1	.3	.1	.3	.3	.2	.0	56	.0
5	.0	.0	.1	.1	.2	.6	.6	.6	.1	.0	98	.0
4	.0	.0	*	.1	.2	.7	1.2	.9	.1	.0	138	*
3	.0	.0	.1	.1	.6	.8	1.1	.8	.1	.0	153	.0
2	.0	.0	.1	.2	1.3	2.1	2.3	1.2	.1	.0	310	*
1	.0	.0	.1	.6	1.5	2.1	2.6	1.2	.0	.0	340	*
0	.0	*	*	.9	3.6	4.2	5.1	1.1	.1	.0	640	.1
-1	.0	.1	.1	1.2	3.9	3.9	3.8	.6	.0	.0	580	.1
-2	.0	.0	.2	2.1	3.7	4.0	3.7	.3	*	.0	592	*
-3	.0	*	.2	1.9	2.9	2.4	1.9	.1	.0	.0	404	*
-4	*	.0	.4	1.8	1.8	2.0	1.0	*	.0	.0	294	*
-5	.0	.1	.5	1.4	1.4	1.2	.4	.1	.0	.0	208	*
-6	.0	*	.5	.8	.7	.3	.1	.0	.0	.0	102	.0
-7/-8	.0	.2	.6	.9	.9	.5	.1	.0	.0	.0	132	.0
-9/-10	*	.2	.4	.3	.1	.1	.0	.0	.0	.0	47	.0
-11/-13	*	.2	.2	.1	*	.0	.0	.0	.0	.0	20	.0
-14/-16	*	*	*	.0	.0	.0	.0	.0	.0	.0	4	.0
TOTAL											4241	
PCT	.1	.9	3.6	12.8	23.4	25.1	25.3	7.8	1.1	.1	100.0	.3
												99.7

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.1	.6	.0	.0	.0	.0	.7	.2	.4	*	.0	.0	.0	.6
1-2	.1	.9	.1	.0	.0	.0	1.2	*	1.5	.1	.0	.0	.0	1.7
3-4	.0	.3	.4	.0	.0	.0	.7	.0	.7	.7	.0	.0	.0	1.4
5-6	.0	*	.1	.0	.0	.0	.2	.0	.2	.5	*	.0	.0	.7
7	.0	*	.1	.0	.0	.0	.2	.0	.0	.2	.1	.0	.0	.2
8-9	.0	.0	.1	*	*	.0	.1	.0	.0	*	.1	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1
12	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	*	.0	.0	*
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	*
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	*
20-22	.0	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.2	1.9	.9	*	*	.0	3.1	.2	2.8	1.6	.3	.1	.0	4.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.2	.6	.0	.0	.0	.0	.8	.5	.8	.0	.0	.0	.0	1.3
1-2	.1	2.7	.7	.0	.0	.0	3.5	.1	4.2	1.2	.0	.0	.0	5.5
3-4	.0	1.2	2.3	.2	.0	.0	3.7	*	1.2	2.7	.2	.0	.0	4.1
5-6	.0	.2	1.7	.1	.0	.0	2.0	.0	.1	2.2	.4	.0	.0	2.8
7	.0	*	.4	.4	.0	.0	.8	.0	.1	.7	.4	.0	.0	1.2
8-9	.0	.0	.2	.2	*	.0	.4	.0	.0	.2	.2	*	.0	.4
10-11	.0	.0	.0	*	.0	.0	.0	.0	.0	*	*	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	*
13-16	.0	.0	.0	.1	.1	.0	.2	.0	.0	.0	.1	.0	.0	.1
17-19	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	*	.0	.0	*
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.3	4.8	5.2	1.2	.2	.0	11.5	.6	6.5	7.0	1.4	*	.0	15.5



PERIOD: (OVER-ALL) 1963-1977

ANNUAL

AREA 0020 BARROW ISLAND  
19.95 114.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.3	1.3	*	.0	.0	.0	1.6	.2	.8	*	.0	.0	.0	1.1
1-2	.1	4.7	2.0	.0	.0	.0	6.9	.3	4.6	1.7	.0	.0	.0	6.6
3-4	*	2.0	5.1	.2	.0	.0	7.4	.0	1.8	4.2	.1	.0	.0	6.1
5-6	.0	.6	4.4	.8	.0	.0	5.8	.0	.2	3.3	.3	.0	.0	3.7
7	.0	.1	1.9	.4	.0	.0	2.4	.0	.1	1.7	.3	.0	.0	2.1
8-9	.0	.1	.5	.7	.1	.0	1.4	.0	.1	.1	.3	*	.0	.5
10-11	.0	.0	.2	.2	.0	.0	.4	.0	.0	.1	.1	.0	.0	.2
12	.0	.0	.0	.0	*	.0	*	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	*	.0	.0	*	.0	.0	.0	*	.0	.0	*
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.5	8.8	14.2	2.3	.1	.0	25.9	.5	7.7	11.1	1.1	*	.0	20.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.2	1.3	.0	.0	.0	.0	1.5	.2	.0	.0	.0	.0	.0	.8	
1-2	.1	3.0	.7	.0	.0	.0	3.8	.1	1.2	.2	.0	.0	.0	1.5	
3-4	*	1.3	1.5	.1	.0	.0	2.9	.1	.6	.3	*	.0	.0	.9	
5-6	.0	.3	1.4	.1	.0	.0	1.7	.0	.2	.2	.0	.0	.0	.4	
7	.0	*	.3	.2	.0	.0	.5	.0	*	.3	.0	.0	.0	.4	
8-9	.0	*	.1	.0	.0	.0	.1	.0	.0	.0	.0	*	.0	*	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.3	6.0	3.9	.3	.0	.0	10.5	.4	2.6	1.0	.1	*	.0	4.2	96.1

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	6.3	5.4	.1	.0	.0	.0	12.8	
1-2	.9	22.9	6.8	.0	.0	.0	30.6	
3-4	.2	9.1	17.0	.8	.0	.0	27.1	
5-6	.0	1.8	13.6	1.7	.0	.0	17.1	
7	.0	.4	5.5	1.8	.0	.0	7.7	
8-9	.0	.2	1.2	1.5	.2	.0	3.1	
10-11	.0	*	.4	.4	*	.0	1.0	
12	.0	.0	.1	.1	*	.0	.2	
13-16	.0	.0	.0	.3	.1	.0	.4	
17-19	.0	.0	.0	.0	*	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	7.4	40.8	44.7	6.7	.4	.0	100.0	2458

PERIOD: (OVER-ALL) 1949-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.3	13.6	12.1	5.1	2.7	1.1	.1	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1142
6-7	.1	1.0	5.9	8.3	5.6	2.8	.7	.4	.4	.0	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	788
8-9	.0	.3	2.3	4.8	4.9	3.4	1.8	.6	.6	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	558
10-11	.0	.1	.6	1.3	1.3	1.1	.8	.5	.4	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	194
12-13	.0	.0	.6	.8	.2	.3	.2	.4	.1	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	79
>13	.0	.0	.0	.4	.3	.1	.1	.3	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	41
INDET	3.1	.6	.5	1.0	1.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	191
TOTAL PCT	6.4	15.6	22.9	21.6	15.9	9.3	3.9	2.3	1.6	.3	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	2993

PERIOD: (PRIMARY) 1877-1972  
(OVER-ALL) 1855-1972

AREA 0020 BARROW ISLAND  
19.95 114.6E

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
94/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.1	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	*
89/90	1.0	1.1	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	.2
87/88	3.2	4.4	6.2	1.6	.0	.0	.0	.0	.0	.0	.2	.0	109	1.3
85/86	12.1	14.0	22.7	9.5	2.0	.6	.0	.0	.0	.1	.8	7.3	469	5.6
83/84	15.9	21.5	26.6	27.8	11.3	2.0	.1	.1	.5	.4	5.2	12.3	825	9.8
81/82	33.8	29.1	25.9	35.1	22.1	7.6	.6	.7	1.4	4.7	17.1	20.3	1322	15.8
79/80	17.4	17.5	11.2	16.0	23.2	15.7	4.1	2.4	3.8	10.5	21.9	21.2	1079	12.9
77/78	8.8	6.8	2.8	5.2	20.0	23.5	13.4	13.6	12.6	21.6	16.5	19.4	1127	13.4
75/76	4.7	3.7	1.7	2.9	12.0	21.3	28.1	26.3	24.1	26.5	18.0	11.1	1308	15.6
73/74	1.7	1.3	1.1	1.1	4.4	13.5	30.1	31.4	29.3	22.0	12.8	6.2	1170	14.0
71/72	.7	.1	.3	.3	2.0	8.0	12.3	15.2	18.9	10.3	6.2	1.4	575	6.9
69/70	.5	.1	.3	.1	1.6	4.6	5.9	5.5	6.1	3.0	.8	.5	221	2.6
67/68	.1	.1	.5	.1	.9	2.0	1.9	2.7	1.9	.3	.4	.2	82	1.0
65/66	.0	.0	.0	.3	.4	.5	2.7	1.0	.4	.6	.2	.0	46	.5
63/64	.0	.0	.0	.0	.2	.6	.5	1.1	.9	.0	.0	.0	25	.3
61/62	.0	.0	.0	.0	.0	.2	.2	.1	.1	.0	.0	.0	5	.1
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	811	701	642	698	551	654	827	825	808	790	516	561	8384	100.0
MEAN	81.3	81.8	82.7	81.6	78.9	76.1	74.0	73.8	73.9	75.5	77.6	79.5	78.0	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

HR	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1008	1006	1007	1004	1007	1006	1007	1006	1007	841
FEB	1007	1006	1007	1005	1006	1007	1007	1006	1006	873
MAR	1009	1008	1008	1007	1008	1009	1009	1008	1008	739
APR	1012	1011	1012	1011	1012	1012	1012	1011	1012	935
MAY	1014	1014	1013	1013	1014	1015	1014	1014	1014	934
JUN	1017	1017	1014	1015	1016	1017	1015	1016	1016	931
JUL	1018	1018	1017	1016	1018	1016	1018	1016	1017	893
AUG	1017	1016	1016	1015	1016	1017	1016	1016	1016	808
SEP	1015	1015	1015	1014	1015	1015	1015	1014	1015	909
OCT	1015	1013	1014	1012	1013	1013	1013	1012	1013	740
NOV	1011	1010	1010	1009	1009	1010	1011	1010	1010	761
DEC	1009	1007	1009	1008	1007	1009	1009	1008	1008	631
ANN	1013	1012	1012	1011	1012	1012	1012	1011	1012	9995
OBS	2205	1446	1019	650	2197	730	1010	738		

PERCENTILES

HR	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	991	998	1000	1004	1007	1009	1012	1014	1020
FEB	992	994	999	1004	1007	1009	1013	1016	1021
MAR	991	995	1001	1006	1009	1011	1014	1017	1021
APR	1003	1005	1007	1010	1012	1014	1016	1018	1025
MAY	1003	1008	1010	1012	1014	1016	1018	1019	1022
JUN	1007	1009	1011	1014	1016	1018	1020	1023	1027
JUL	1007	1010	1013	1015	1017	1019	1022	1023	1025
AUG	1009	1010	1011	1014	1016	1018	1020	1022	1028
SEP	1006	1009	1011	1013	1015	1016	1019	1020	1025
OCT	1007	1008	1010	1012	1013	1015	1017	1019	1022
NOV	1003	1005	1006	1008	1010	1012	1015	1018	1021
DEC	1000	1002	1003	1006	1008	1010	1013	1014	1017

## JANUARY

PERIOD: (PRIMARY) 1924-1973  
(OVER-ALL) 1923-1973

TABLE 1

AREA 0021 BROOME  
16.6S 121.3E

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	.0	1.6	.0	.0	.0	.0	.0	1.6	12.0	4.8	.0	.0	5.6	.0	76.0	
NE	8.4	5.6	.9	.0	.0	.0	.0	14.0	3.7	3.7	.0	.0	8.4	.0	70.1	
E	5.6	11.1	2.4	.0	.0	.0	.0	16.7	3.2	6.3	.0	.0	.0	.0	73.8	
SE	6.7	16.7	.0	.0	.0	.0	.0	23.3	.0	2.2	.0	.0	4.4	.0	70.0	
S	4.3	7.4	.0	.0	.0	.0	.0	11.7	.0	.0	2.1	.0	2.1	.0	84.0	
SW	5.0	9.0	.0	.0	.0	.0	.0	13.9	.0	6.5	1.9	.0	1.9	.0	77.1	
W	2.5	1.3	.0	.0	.0	.0	.0	3.6	.6	8.2	.0	.0	2.5	.0	86.1	
NW	4.4	1.5	.0	.0	.0	.0	.0	5.9	1.8	4.8	.0	.0	.0	.0	87.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
TOT PCT	4.0	5.3	.2	.0	.0	.0	.0	9.2	1.7	5.7	.4	.0	2.5	.0	81.1	
TOT OBS:	476															

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
0000	4.4	5.0	.0	.0	.0	.0	.0	9.4	.6	.0	.6	.0	4.4	.0	85.0
0600	3.0	5.0	.0	.0	.0	.0	.0	8.0	.0	.0	1.0	.0	3.0	.0	88.0
1200	4.3	7.1	.7	.0	.0	.0	.0	11.3	2.8	9.2	.7	.0	2.1	.0	74.5
1800	5.2	4.2	.0	.0	.0	.0	.0	9.4	3.1	14.6	.0	.0	1.0	.0	74.0
TOT PCT	4.2	5.4	.2	.0	.0	.0	.0	9.7	1.6	5.4	.6	.0	2.8	.0	80.5
TOT OBS:	497														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	1.1	3.6	1.3	.6	.0	.0		6.6	8.7		5.4	8.0	8.5	2.6	9.4	3.2	10.5	4.9
NE	.0	3.2	2.3	.1	.0	.0		5.6	10.1		7.5	2.7	4.9	11.4	2.8	4.8	5.8	4.9
E	.6	3.5	1.8	.7	.0	.0		6.6	10.6		4.8	10.7	4.9	6.1	4.0	12.2	4.1	8.8
SE	.2	4.0	4.2	1.0	.0	.0		9.5	11.8		11.6	19.8	2.4	6.1	5.7	17.0	.6	10.8
S	.1	3.3	1.4	.2	.0	.0		4.9	10.0		6.7	8.9	3.7	5.3	1.7	2.1	4.1	8.9
SW	2.7	8.0	5.9	.1	.2	.0		17.0	9.5		19.9	19.6	21.3	21.9	19.3	8.5	4.7	13.7
W	.8	19.6	10.3	2.2	.3	.0		33.3	11.1		32.3	20.5	26.2	33.3	38.4	36.2	43.0	35.3
NW	.8	7.5	5.1	.7	.1	.0		14.2	10.7		11.8	9.8	18.3	13.2	15.3	13.8	20.3	14.7
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	2.3							2.3	.0		.0	.0	9.8	.0	3.4	2.1	7.0	.0
TOT OBS	41	251	154	27	3	0	476		10.3		93	56	41	57	88	47	43	51
TOT PCT	8.6	52.7	32.4	5.7	.6	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	3.8	1.8	.9	.0	.0			6.6	8.7		6.4	5.1	7.2	7.4
NE	1.8	3.4	.4	.0	.0			5.6	10.1		5.7	8.7	3.5	5.3
E	2.2	3.1	1.3	.0	.0			6.6	10.6		7.0	5.6	6.9	6.6
SE	2.5	5.1	1.6	.2	.0			9.5	11.8		14.6	4.6	9.6	8.1
S	1.2	3.2	.5	.0	.0			4.9	10.0		7.6	4.6	1.9	5.6
SW	5.4	9.8	1.6	.2	.0			17.0	9.5		19.8	21.7	15.6	9.6
W	7.5	20.2	4.8	.8	.0			33.3	11.1		27.9	30.4	37.6	38.8
NW	4.3	7.9	1.4	.6	.0			14.2	10.7		11.1	15.3	14.8	17.3
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	2.3							2.3	.0		.0	4.1	3.0	3.2
TOT OBS	148	259	60	9	0	476			10.3		149	98	135	94
TOT PCT	31.1	54.4	12.6	1.9	.0			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1926-1973  
(OVER-ALL) 1923-1973

JANUARY

AREA 0021 BROOME  
16.65 121.3E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
0000	.0	10.7	58.4	26.2	4.0	.7	.0	9.3	100.0	149
0600	4.1	4.1	50.0	36.7	4.1	1.0	.0	10.9	100.0	98
1200	3.0	5.2	46.7	37.0	8.1	.0	.0	10.8	100.0	135
1800	3.2	3.2	55.3	30.9	6.4	1.1	.0	10.4	100.0	94
TOT	11	30	251	154	27	3	0	10.3		476
PCT	2.3	6.3	52.7	32.4	5.7	.6	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

BY WIND DIRECTION						MEAN
WIND DIR	0-2	3-4	5-7	8-6	TOTAL	CLOUD
				DBSCD	OBS	COVER
N	4.2	2.2	.5	1.9		3.5
NE	.2	.0	2.6	3.4		7.0
E	.0	.0	.5	3.7		7.8
SE	.3	.6	.8	1.4		6.3
S	1.6	.5	.6	.6		4.0
SW	5.6	4.2	5.0	.8		3.7
W	3.8	13.0	10.1	5.0		4.1
NW	3.7	3.8	7.5	2.6		4.5
VAR	.0	.0	.0	.0		.0
CALM	2.6	.0	.6	1.3		3.7
TOT OBS	42	38	44	32	156	4.4
TOT PCT	26.9	24.4	28.2	20.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/P)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	8.3	
.0	.0	.0	.0	2.7	.6	.6	.0	.0	.0	2.1	
.0	.0	.0	.0	.5	1.1	.0	.0	.0	.0	2.4	
.0	.0	.6	.0	.6	.2	.6	.0	.0	.0	1.1	
.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	2.7	
.0	.0	.0	.6	1.4	.0	.0	.0	.0	.0	13.5	
.0	.0	.0	2.4	3.0	1.3	.0	.0	.6	.0	29.5	
.0	.0	.0	.2	3.4	1.3	.0	.0	.0	.0	12.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.6	1.3	.0	.0	.0	.0	.0	.0	2.6	
.0	0	3	7	19	7	2	0	1	0	117	156
.0	.0	1.9	4.5	12.2	4.5	1.3	.0	.6	.0	75.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
* OR >5000	.6	.6	.6	.6	.6	.6	.6	.6
* OR >4000	.6	.6	.6	.6	.6	.6	.6	.6
* OR >3500	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
* OR >2000	4.5	6.4	6.4	6.4	6.4	6.4	6.4	6.4
* OR >1000	14.0	17.2	17.8	18.5	18.5	18.5	18.5	18.5
* OR >600	15.9	21.0	22.3	22.9	22.9	22.9	22.9	22.9
* OR >300	15.9	22.3	24.2	24.8	24.8	24.8	24.8	24.8
* OR >150	15.9	22.3	24.2	24.8	24.8	24.8	24.8	24.8
* OR >0	15.9	22.3	24.2	24.8	24.8	24.8	24.8	24.8
TOTAL	25	35	38	39	39	39	39	39

TOTAL NUMBER OF OBS: 157

PCT FREQ NH <5/8: 75.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	DBSCD	TOTAL OBS
4.3	20.9	19.8	15.7	5.6	8.1	7.9	2.3	15.1	.0	172

PERIOD: (PRIMARY) 1926-1973  
(OVER-ALL) 1923-1973

JANUARY

AREA 0071 BROOME  
16.65 121.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2
1<2	PCP	.0	.0	.0	.0	.0	.2	.0	.4	.0	.0	.0	.6
	NO PCP	.6	.4	.0	.4	.1	.3	.8	.0	.0	.0	.0	2.7
	TOT %	.6	.4	.0	.4	.1	.5	.8	.4	.0	.0	.0	3.4
2<5	PCP	.0	.4	.0	.0	.2	.0	.2	.0	.0	.0	.0	.8
	NO PCP	.0	.0	.2	.0	.0	.2	.2	.0	.0	.0	.0	.6
	TOT %	.0	.4	.2	.0	.2	.2	.4	.0	.0	.0	.0	1.5
5<10	PCP	.1	.4	1.1	2.2	.2	1.9	1.1	.4	.0	.0	.0	7.4
	NO PCP	2.7	2.0	3.4	4.6	3.2	6.5	17.8	6.8	.0	1.1	.0	47.9
	TOT %	2.8	2.4	4.5	6.8	3.4	8.4	18.8	7.2	.0	1.1	.0	55.3
10+	PCP	.0	.0	.0	.0	.2	.3	.0	.0	.0	.0	.0	.4
	NO PCP	3.1	2.4	1.9	2.2	1.0	7.5	13.2	6.6	.0	1.3	.0	39.3
	TOT %	3.1	2.4	1.9	2.2	1.2	7.8	13.2	6.6	.0	1.3	.0	39.7
TOT OBS													476
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.2	.2	.0	.4	.0	.2	.6	.0	.0	.0	.0	1.7
	11-21	.0	.2	.0	.0	.1	.3	.2	.4	.0	.0	.0	1.3
	22+	.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4
	TOT %	.6	.4	.0	.4	.1	.5	.8	.4	.0	.0	.0	3.4
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.2	.0	.0	.0	.2	.0	.0	.0	.0	.4
	11-21	.0	.4	.0	.0	.2	.2	.0	.0	.0	.0	.0	.8
	22+	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
	TOT %	.0	.4	.2	.0	.2	.2	.4	.0	.0	.0	.0	1.5
5<10	0-3	.4	.0	.4	.0	.1	1.6	.4	.2	.0	1.1	.0	4.2
	4-10	1.5	1.7	2.5	1.9	2.0	3.9	10.6	3.1	.0	.0	.0	27.1
	11-21	.7	.6	1.4	4.2	1.1	2.6	5.7	3.0	.0	.0	.0	19.3
	22+	.2	.1	.2	.7	.2	.3	2.1	.8	.0	.0	.0	4.6
	TOT %	2.8	2.4	4.5	6.8	3.4	8.4	18.8	7.2	.0	1.1	.0	55.3
10+	0-3	.6	.0	.2	.2	.0	1.1	.4	.6	.0	1.3	.0	4.4
	4-10	1.9	1.3	.8	1.7	1.2	3.8	8.2	4.4	.0	.0	.0	23.3
	11-21	.6	1.1	.4	.0	.0	2.8	4.4	1.6	.0	.0	.0	10.9
	22+	.0	.1	.5	.3	.0	.0	.2	.0	.0	.0	.0	1.1
	TOT %	3.1	2.4	1.9	2.2	1.2	7.8	13.2	6.6	.0	1.3	.0	39.7
TOT OBS													476
TOT PCT													100.0



PERIOD: (PRIMARY) 1926-1973  
(OVER-ALL) 1923-1973

JANUARY

AREA 0021 BROOME  
16.65 121.3E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL OBS	NH < 5/8 ANY HGT	TOTAL OBS
00003	.0	.0	2.4	4.8	19.0	7.1	2.4	.0	.0	.0	35.7	64.3	42
06009	.0	.0	2.3	4.5	13.6	9.1	.0	.0	.0	.0	29.5	70.5	44
12015	.0	.0	.0	2.8	8.3	.0	.0	.0	2.8	.0	13.9	86.1	36
18021	.0	.0	2.5	5.0	5.0	.0	2.5	.0	.0	.0	15.0	85.0	40
TOT	0	0	3	7	19	7	2	0	1	0	39	123	162
PCT	.0	.0	1.9	4.3	11.7	4.3	1.2	.0	.6	.0	24.1	75.9	100.0

TABLE 11

PERCENT FREQUENCY VS BY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.6	5.0	.6	57.5	36.3	100
06009	.0	.0	4.0	1.0	53.0	42.0	100
12015	.0	.7	4.3	1.4	56.7	36.9	141
18021	.0	.0	.0	3.1	53.1	43.8	96
TOT	0	2	18	7	276	194	497
PCT	.0	.4	3.6	1.4	55.5	39.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VS BY (NM) AND/OR  
CEILING HGT (FEET, NH > 4/8), BY HOUR

HOURL (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.0	2.4	11.9	23.8	64.3	42
06009	.0	2.3	11.6	23.3	65.1	43
12015	.0	.0	11.8	11.8	76.5	34
18021	.0	2.6	10.5	7.9	81.6	38
TOT	0	3	18	27	112	157
PCT	.0	1.9	11.5	17.2	71.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.2	.9	.0	.0	.0	5	1.2
85/89	.0	.0	.0	.7	4.7	14.2	15.9	1.7	157	37.2
80/84	.0	.0	.0	.5	1.7	7.3	39.1	8.5	241	57.1
75/79	.0	.0	.0	.0	.0	.2	1.7	2.6	19	4.5
TOTAL	0	0	0	6	31	92	239	54	422	100.0
PCT	.0	.0	.0	1.4	7.3	21.8	56.6	12.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.0	.5	.2	.0	.0	.0	.2	.0	.0
3.0	2.1	2.3	2.9	1.7	7.0	12.2	4.6	.0	1.4
3.1	3.4	3.6	5.9	2.7	8.8	20.0	8.8	.0	.9
.0	.2	.7	1.2	.6	.5	1.1	.1	.0	.0
6.3	5.7	7.0	10.3	5.0	16.3	33.3	13.7	.0	2.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	90	89	84	79	78	76	84.0	159
06009	94	91	89	85	81	75	75	85.3	99
12015	89	88	86	84	80	78	75	83.5	141
18021	87	86	86	83	78	76	76	82.7	96
TOT	94	90	88	84	80	78	75	83.8	495

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	4.2	8.5	21.1	54.9	11.3	81	142		
06009	.0	1.1	16.9	29.2	48.3	4.5	78	89		
12015	.0	.0	2.4	20.0	59.2	18.4	83	125		
18021	.0	.0	3.5	19.8	61.6	15.1	84	86		
TOT	0	7	33	98	248	56	31	442		

## JANUARY

PERIOD: (PRIMARY) 1924-1973  
(OVER-ALL) 1923-1973AREA 0071 BROOME  
16.65 121.3F

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.0	.3	1	.0	.3
7/8	.0	.0	.0	.6	.0	2	.0	.6
5	.0	.0	.0	1.1	.3	5	.0	1.4
4	.0	.0	.0	1.4	.6	7	.0	2.0
3	.0	.0	1.1	1.7	1.4	15	.0	4.2
2	.0	.0	1.7	3.6	.6	21	.0	5.9
1	.0	.3	3.6	8.1	.0	43	.0	12.0
0	.0	.0	9.0	7.8	.0	60	.0	16.8
-1	.0	.3	10.6	7.6	.3	67	.0	18.8
-2	.0	.3	12.6	2.0	.0	53	.3	14.6
-3	.0	1.4	10.9	1.1	.0	18	.0	13.4
-4	.6	2.0	2.5	.3	.0	19	.3	5.0
-5	.0	1.1	1.4	.6	.0	11	.0	3.1
-6	.0	.8	.0	.3	.0	4	.0	1.1
-7/-8	.0	.0	.3	.0	.0	1	.0	.3
TOTAL	2		192	129	12	357		355
PCT	.6	5.2	53.8	36.1	3.4	100.0	.6	99.4

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	2.0	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0
1-2	1.6	.8	1.6	.0	.0	.0	4.1	.0	3.3	.8	.0	.0	.0	4.1
3-4	.0	.6	.6	.0	.0	.0	1.2	.0	.0	1.6	.0	.0	.0	1.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.2	.0	.0	1.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.6	3.5	2.2	.0	.0	.0	7.3	.0	3.3	4.1	.2	.0	.0	7.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.6	.0	.0	.0	.0	.6	.0	1.4	.0	.0	.0	.0	1.4
3-4	.0	.0	.8	.0	.0	.0	.8	.0	.8	.0	.0	.0	.0	.8
5-6	.0	.0	.8	2.0	.0	.0	2.8	.0	.0	.0	1.0	.0	.0	1.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.6	1.6	2.0	.0	.0	4.3	.0	2.2	.0	1.0	.0	.0	3.3

AREA 0021 BROOME  
16.65 121.3E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

WIND SPEED (KTS) VS SEA HEIGHT (FT)PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)[illegible]

## FEBRUARY

PERIOD: (PRIMARY) 1924-1968  
(OVER-ALL) 1884-1968

AREA 0021 BROOME  
16.75 121.3E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA	
N	2.5	3.3	3.3	.0	.0	.0	.0	9.0	.0	10.7	.0	.0	3.3	.0	77.0	
NE	8.8	9.6	.0	.0	.0	.0	.0	18.4	.8	6.4	.0	.0	3.2	.0	72.8	
E	4.7	7.1	.0	.0	.0	.0	.0	11.8	7.1	15.3	.0	.0	.0	.0	68.2	
SE	1.8	8.8	.0	.0	.0	.0	.0	10.6	.9	.0	.0	.0	.0	.0	88.5	
S	5.2	7.0	.0	.0	.0	.0	.0	12.2	3.5	8.7	.0	.0	.0	.0	80.9	
SW	.7	2.7	.0	.0	.0	.0	.0	3.3	.0	6.0	.7	.0	3.7	.0	87.0	
W	1.0	2.7	.7	.0	.0	.0	.0	4.4	1.0	3.6	.5	.0	3.1	.0	87.4	
NW	.0	5.2	.4	.0	.0	.0	.0	5.6	.0	4.4	.0	.0	9.7	.0	80.2	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	7.1	.0	.0	.0	.0	.0	.0	7.1	7.1	7.1	.0	.0	.0	.0	85.7	
TOT PCT	2.3	4.6	.5	.0	.0	.0	.0	7.4	1.3	5.8	.3	.0	3.6	.0	82.7	
TOT OBS:	394															

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NIG SIG WEA
06003	2.3	3.8	.0	.0	.0	.0	.0	6.0	1.5	1.5	.0	.0	4.5	.0	86.5
06009	.0	4.3	1.4	.0	.0	.0	.0	5.7	1.4	.0	.0	.0	4.3	.0	38.6
12015	4.1	5.7	.0	.0	.0	.0	.0	9.8	.8	4.9	.0	.0	4.1	.0	82.1
18021	4.9	3.7	1.2	.0	.0	.0	.0	9.8	1.2	22.0	1.2	.0	2.4	.0	68.3
TOT PCT TOT OBS:	2.9 408	4.4	.5	.0	.0	.0	.0	7.8	1.2	6.4	.2	.0	3.9	.0	81.9

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.5	2.1	3.7	.4	.0	.0		7.6	11.3		6.5	8.0	.0	5.1	9.3	7.5	8.8	12.5
NE	.4	3.3	2.5	1.6	.0	.0		7.8	12.9		8.8	7.1	.9	3.8	6.5	13.8	4.7	14.8
E	.0	2.3	1.9	1.3	.0	.0		5.3	14.0		9.7	3.8	6.0	7.7	1.2	2.5	6.8	5.7
SE	.5	3.5	2.1	1.0	.0	.0		7.1	11.0		5.2	17.0	6.9	7.7	3.7	7.5	3.4	6.8
S	1.3	4.8	1.2	.0	.0	.0		7.2	6.7		11.4	9.9	2.6	3.8	4.9	8.8	2.7	9.1
SW	1.8	12.2	4.8	.5	.1	.0		19.4	8.7		22.7	26.9	12.9	11.5	22.2	13.8	18.9	15.9
W	.7	16.9	7.6	.8	.1	.3		25.4	10.5		24.0	13.2	38.8	30.8	31.5	23.8	31.8	22.7
NW	.1	7.3	7.3	1.2	.0	.0		15.8	12.4		9.1	12.3	14.7	24.4	18.2	22.5	20.3	10.2
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.5							3.5	.0		2.6	1.9	17.2	5.1	2.5	.0	2.7	2.3
TOT OBS	39	209	123	27	1	1	400		10.3		77	53	29	39	81	40	37	44
TOT PCT	9.8	52.3	30.8	6.8	.3	.3		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	1.9	3.6	1.9	.3	.0		7.6	11.3	7.1	2.9	8.7	10.8
NE	1.7	3.7	2.2	.3	.0		7.8	12.9	8.1	2.6	8.9	10.2
E	1.4	1.8	1.8	.4	.0		5.3	14.0	7.3	7.0	1.7	6.2
SE	3.5	1.7	1.8	.1	.0		7.1	11.0	10.0	7.4	5.0	5.2
S	4.6	2.3	.3	.0	.0		7.2	6.7	10.8	3.3	6.2	6.2
SW	8.3	9.5	1.4	.0	.1		19.4	8.7	24.4	12.1	19.4	17.3
W	6.4	12.4	5.1	.0	.4		26.4	10.5	19.6	34.2	28.9	26.9
NW	2.9	7.9	4.6	.3	.0		15.8	12.4	10.4	20.2	19.6	14.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	3.5						3.5	.0	2.3	10.3	1.7	2.5
TOT OBS	145	172	76	5	2	400		10.3	130	68	121	81
TOT PCT	36.3	43.0	19.0	1.3	.5		100.0		100.0	100.0	100.0	100.0

## FEBRUARY

PERIOD: (PRIMARY) 1924-1968  
(OVER-ALL) 1884-1968

AREA 0021 BROOME  
16.75 121.3E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	0-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	2.3	6.9	58.5	24.6	6.9	.0	.8	9.7	100.0
06009	10.3	2.9	42.6	35.3	8.8	.0	.0	10.7	100.0
12015	1.7	6.6	51.2	35.5	5.0	.0	.0	10.5	100.0
18021	2.5	7.4	51.9	29.6	7.4	1.2	.0	10.6	100.0
TOT	14	25	209	123	27	1	1	10.3	400
PCT	3.5	6.3	52.3	30.8	6.8	.3	.3	100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-10	TOTAL OBS	MEAN CLOUD COVER
N	3.1	1.1	3.8	1.4		4.1
NE	1.1	1.2	2.5	3.2		6.4
E	.7	.0	2.2	1.4		6.0
SE	2.9	.0	1.8	1.6		4.6
S	.0	1.3	1.3	3.4		6.5
SW	3.6	5.6	3.2	3.6		4.3
W	12.8	8.3	5.8	4.7		3.4
NW	4.7	2.3	1.8	4.0		4.3
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	7.2	4.3		7.4
TOT OBS	40	26	34	39	139	4.6
TOT PCT	28.8	18.7	24.5	28.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL
149	299	599	999	1999	3499	4999	6499	7999			OBS
.0	.0	.0	1.3	1.1	1.4	.0	.0	.0	.0	5.6	
.0	.0	.0	1.6	2.0	1.8	.2	.0	.0	.0	1.4	
.0	.0	.0	.0	.5	2.2	.5	.0	.0	.0	1.3	
.0	.0	.0	2.2	.2	.4	.0	.7	.0	.0	2.9	
.0	.0	.0	1.4	1.3	1.4	.7	.0	.0	.0	1.3	
.0	.0	.0	.0	1.4	3.1	.0	.0	.0	.0	11.5	
.0	.0	.0	.0	4.9	1.8	.0	.0	.0	.0	24.8	
.0	.0	.0	.0	1.6	2.3	.7	.0	.0	.0	8.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	1.4	.0	1.4	.0	.7	.0	.7	7.2	
.0	.0	.0	.0	11	18	22	3	2	.0	1	82
.0	.0	.0	7.9	12.9	15.8	2.2	1.4	.0	.7	59.0	139
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	.7	.7	.7	.7	.7	.7	.7	.7
= OR >5000	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
= OR >3500	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
= OR >2000	17.5	20.4	20.4	20.4	20.4	20.4	20.4	20.4
= OR >1000	20.3	32.1	33.6	33.6	33.6	33.6	33.6	33.6
= OR >400	32.8	39.4	40.9	40.9	41.6	41.6	41.6	41.6
= OR >300	32.8	39.4	40.9	40.9	41.6	41.6	41.6	41.6
= OR >150	32.8	39.4	40.9	40.9	41.6	41.6	41.6	41.6
= OR >0	32.8	39.4	40.9	40.9	41.6	41.6	41.6	41.6
TOTAL	45	54	56	56	57	57	57	57

TOTAL NUMBER OF OBS: 137

PCT FREQ NH &lt;5/8: 58.4

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	TOTAL OBS
15.0	7.5	17.7	10.2	8.2	6.1	7.5	4.1	23.8	147



## FEBRUARY

PERIOD: (PRIMARY) 1924-1968  
(OVER-ALL) 1984-1968

TABLE 8

AREA 0021 BROOME  
16.75 121.3EPERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.3	.0	.0	.0	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.3	
	TOT %	.0	.0	.0	.0	.3	.1	.1	.0	.0	.0	.5	
1<2	PCP	.0	.3	.3	.3	.0	.0	.0	.0	.0	.0	.8	
	NO PCP	.3	.0	.0	.0	.0	.3	.3	1.3	.0	.0	2.0	
	TOT %	.3	.3	.3	.3	.0	.3	.3	1.3	.0	.0	2.8	
2<5	PCP	.3	.3	.3	.5	.0	.0	.3	.5	.0	.0	2.0	
	NO PCP	.0	.0	.0	.0	.0	.3	.0	.3	.0	.0	.5	
	TOT %	.3	.3	.3	.5	.0	.3	.3	.8	.0	.0	2.5	
5<10	PCP	.3	.9	.1	.0	.6	.6	.7	.3	.0	.3	3.8	
	NO PCP	3.4	3.4	1.7	1.6	3.7	7.6	12.2	7.2	.0	.8	41.6	
	TOT %	3.7	4.3	1.8	1.6	4.3	8.2	12.9	7.6	.0	1.0	45.4	
10+	PCP	.2	.1	.0	.0	.0	.0	.2	.1	.0	.0	.5	
	NO PCP	3.4	3.0	3.0	4.8	2.7	10.2	12.4	6.1	.0	2.5	48.2	
	TOT %	3.6	3.1	3.0	4.8	2.7	10.2	12.6	6.2	.0	2.5	48.7	
TOT OBS													394
TOT PCT		7.7	7.9	5.4	7.2	7.3	19.0	26.2	15.7	.0	3.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.3	.1	.1	.0	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.3	.1	.1	.0	.0	.0	.5	
1<2	0-3	.0	.0	.0	.0	.0	.1	.2	.0	.0	.0	.3	
	4-10	.3	.0	.0	.0	.0	.3	.3	.8	.0	.0	1.5	
	11-21	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5	
	22+	.0	.3	.3	.3	.0	.0	.0	.0	.0	.0	.8	
	TOT %	.3	.3	.3	.3	.0	.3	.4	1.3	.0	.0	3.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.3	.0	.0	.0	.3	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.0	.0	.0	.3	.3	.0	.0	.5	
	22+	.3	.0	.3	.5	.0	.0	.0	.5	.0	.0	1.5	
	TOT %	.3	.3	.3	.5	.0	.3	.3	.8	.0	.0	2.5	
5<10	0-3	.6	.4	.0	.5	.5	.3	.0	.0	.0	1.0	3.3	
	4-10	.5	1.3	.7	.9	3.3	4.9	7.6	1.8	.0	.0	21.0	
	11-21	2.4	1.8	.6	.1	.5	3.0	4.5	5.1	.0	.0	18.0	
	22+	.1	.9	.5	.0	.0	.0	.8	.7	.0	.0	3.0	
	TOT %	3.7	4.3	1.8	1.6	4.3	8.2	12.9	7.5	.0	1.0	45.3	
10+	0-3	.9	.1	.0	.0	.8	1.5	.5	.1	.0	2.5	6.3	
	4-10	1.3	1.8	1.6	2.6	1.5	6.9	9.3	4.6	.0	.0	29.6	
	11-21	1.3	.8	1.1	2.0	.4	1.5	2.8	1.5	.0	.0	11.4	
	22+	.0	.5	.3	.3	.0	.3	.0	.0	.0	.0	1.3	
	TOT %	3.5	3.1	3.0	4.8	2.7	10.1	12.6	6.1	.0	2.5	48.6	
TOT OBS													395
TOT PCT		7.7	7.9	5.4	7.2	7.3	19.0	26.3	15.7	.0	3.5	100.0	

## FEBRUARY

PERIOD: (PRIMARY) 1924-1968  
(OVER-ALL) 1884-1968

AREA 0071 BROOME  
16.75 121.3F

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	10.8	16.2	24.3	2.7	2.7	.0	2.7	59.5	40.5	37
06009	.0	.0	.0	10.0	6.7	10.0	.0	.0	.0	.0	26.7	73.3	30
12015	.0	.0	.0	7.7	5.1	15.4	.0	.0	.0	.0	28.2	71.8	39
18021	.0	.0	.0	2.7	21.6	10.8	5.4	2.7	.0	.0	43.2	56.8	37
TOT	0	0	0	11	18	22	3	2	0	1	57	86	143
PCT	.0	.0	.0	7.7	12.6	15.4	2.1	1.4	.0	.7	39.9	60.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	3.0	3.0	46.6	47.4	133
06009	.0	.0	4.3	2.9	41.4	51.4	70
12015	.0	.8	4.8	1.6	50.8	41.9	124
18021	.0	1.2	1.2	2.4	43.9	51.2	82
TOT	0	2	14	10	190	193	409
PCT	.0	.5	3.4	2.4	46.5	47.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50VD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	13.5	45.9	40.5	37
06009	.0	.0	14.3	14.3	71.4	28
12015	.0	2.8	8.3	22.2	69.4	36
18021	.0	.0	2.8	41.7	55.6	35
TOT	0	1	13	44	80	137
PCT	.0	.7	9.5	32.1	58.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.3	1.1	.3	.0	6	1.7
85/89	.0	.0	.6	1.1	2.8	20.8	18.8	2.6	164	46.7
80/84	.0	.0	1.4	3.4	7.1	28.8	8.3	.0	172	49.0
75/79	.0	.0	.0	.3	.0	.9	1.1	.0	8	2.3
70/74	.0	.0	.0	.0	.3	.0	.0	.0	1	.3
TOTAL	0	0	2	9	24	103	171	42	381	100.0
PCT	.0	.0	.6	2.6	6.8	29.3	48.7	12.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.0	.0	.0	.9	.6	.3	.0	.0
85/89	2.8	1.6	2.1	2.4	2.7	10.0	14.0	8.1	.0	2.8
80/84	4.8	4.8	2.9	4.8	3.4	7.3	13.0	7.3	.0	.6
75/79	.0	.6	.0	.1	.5	.3	.3	.3	.0	.3
70/74	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0
TOTAL	7.6	7.1	5.1	7.3	6.6	18.5	27.8	16.3	.0	3.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	92	90	89	85	80	78	75	84.7	135
06009	93	92	90	86	82	78	78	85.1	71
12015	89	88	86	84	80	77	77	83.7	124
18021	87	86	85	83	80	73	73	82.8	84
TOT	93	90	89	84	80	77	73	84.3	414

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	3.5	7.1	37.2	46.0	6.2	78	113		
06009	.0	7.9	9.5	46.0	30.2	6.3	76	63		
12015	.0	.9	7.1	17.7	58.4	15.9	53	113		
18021	.0	2.6	3.9	19.7	55.3	18.4	53	76		
TOT	0	12	25	106	179	43	40	365		

## FEBRUARY

PERIOD: (PRIMARY) 1974-1988  
(OVER-ALL) 1884-1988AREA 0021 BROOME  
10.75 121.3E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	% FOG	% NO FOG
7/8	.0	.0	.0	1.0	1.0	.3	7	.0	2.3
6	.0	.0	.0	1.3	.0	.0	4	.0	1.3
5	.0	.0	1.7	.0	.7	.0	7	.0	2.3
4	.0	.0	.7	2.0	.7	.0	10	.0	3.3
3	.0	.0	2.0	3.0	1.0	.0	18	.0	6.0
2	.0	.0	3.6	3.3	1.3	.0	25	.0	8.3
1	.0	.3	3.0	6.6	.7	.0	32	.0	10.6
0	.0	.3	7.0	10.3	.3	.0	54	.0	17.9
-1	.0	.7	7.3	10.3	.3	.0	56	.0	18.5
-2	.3	2.0	9.3	3.3	.0	.0	45	.0	14.9
-3	.0	.3	3.3	2.6	.0	.0	19	.0	6.3
-4	.0	1.3	4.0	.3	.0	.0	17	.0	5.6
-5	.0	.3	.7	.3	.0	.0	4	.0	1.3
-6	.0	.3	.3	.0	.0	.0	2	.0	.7
-7/-8	.0	.0	.7	.0	.0	.0	2	.0	.7
TOTAL	1	131	134	18	1	302	0	302	
PCT	.3	5.6	43.4	44.4	6.0	.3	100.0	100.0	

PERIOD: (OVER-ALL) 1963-1968

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.9	.8	.0	.0	.0	.0	2.7	.0	.3	.0	.0	.0	.0	.3
1-2	.8	3.8	.0	.0	.0	.0	4.6	.0	3.5	.0	.0	.0	.0	3.8
3-4	.0	.0	.8	.0	.0	.0	.8	.0	1.1	.5	.0	.0	.0	1.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.7	4.6	.8	.0	.0	.0	8.2	.3	4.9	.5	.0	.0	.0	5.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.4	.0	.0	.0	.0	2.4	.0	3.3	2.2	.0	.0	.0	5.4
3-4	.0	.0	.8	.0	.0	.0	.8	.0	.0	.3	.0	.0	.0	.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.4	.8	.0	.0	.0	3.3	.0	3.3	2.4	.0	.0	.0	5.7

PERIOD: (OVER-ALL) 1963-1968

FEBRUARY

AREA 0021 BROOME

TABLE 18 (CONT)

16.75 121.3E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	1.1	.8	.0	.0	.0	.0	1.9	1.1	1.0	.0	.0	.0	.0	.0	2.7	
1-2	.0	1.1	1.1	.0	.0	.0	2.2	.0	9.2	2.2	.0	.0	.0	.0	11.4	
3-4	.0	1.1	.8	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.3	1.9	.0	.0	.0	.0	2.2	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.1	3.0	1.9	.0	.0	.0	6.0	1.1	11.1	4.1	.0	.0	.0	.0	16.3	

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	1.1	3.0	.0	.0	.0	.0	4.1	.3	1.1	.0	.0	.0	.0	.0	1.4	
1-2	.0	15.2	2.2	.0	.0	.0	17.4	.0	6.0	1.1	.0	.0	.0	.0	7.1	
3-4	.0	1.1	3.0	.0	.0	.0	4.1	.0	1.1	2.4	.0	.0	.0	.0	3.5	
5-6	.0	.0	5.7	1.9	.0	.0	10.6	.0	.0	.0	.3	.0	.0	.0	.3	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.1	22.3	10.9	1.9	.0	.0	36.1	.3	8.2	3.5	.3	.0	.0	.0	12.2	93.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	12.0	7.6	.0	.0	.0	.0	19.6	
1-2	1.1	44.6	8.7	.0	.0	.0	54.3	
3-4	.0	4.3	8.7	.0	.0	.0	13.0	
5-6	.0	3.3	7.6	2.2	.0	.0	13.0	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	13.0	59.8	25.0	2.2	.0	.0	100.0	92

PERIOD: (OVER-ALL) 1963-1968

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	9.6	43.6	17.0	4.3	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	71	2
6-7	.0	.0	4.3	9.6	3.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18	5
8-9	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
10-11	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	2
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
INDET	5.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	0
TOTAL	14	42	20	14	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	94	3
PCT	14.9	44.7	21.3	14.9	4.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

MARCH

PERIOD: (PRIMARY) 1924-1967  
(OVER-ALL) 1884-1967AREA 0021 BROOME  
10.65 121.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	14.4	2.3	.0	.0	.0	.0	.0	18.6	2.3	2.3	.0	.0	.0	.0	76.8	
NE	21.8	5.4	.0	.0	.0	.0	.0	27.2	.0	5.4	4.1	.0	.0	.0	68.7	
E	1.9	3.9	.0	.0	.0	.0	.0	5.8	.0	.0	3.9	.0	1.3	.0	89.0	
SE	.0	2.0	2.5	.0	.0	.0	.0	4.4	5.9	1.5	.0	.0	5.9	.0	82.4	
S	1.5	2.0	1.5	.0	.0	.0	.0	5.0	.0	6.5	.0	.0	9.0	.0	79.5	
SW	.3	1.9	.0	.0	.0	.0	.0	2.2	.0	1.3	3.2	.0	8.2	.0	85.2	
W	.0	.7	.0	.0	.0	.0	.0	.7	.0	4.5	3.0	.0	4.5	.0	87.3	
NW	2.0	7.1	.0	.0	.0	.0	.0	9.1	2.0	.0	7.1	.0	3.0	.0	78.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	5.3	.0	.0	.0	.0	.0	5.3	.0	13.8	.0	.0	.0	.0	78.9	
TOT PCT	4.1	3.0	.5	.0	.0	.0	.0	7.6	1.1	3.2	2.5	.0	4.4	.0	81.6	
TOT OBS:	435															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
HOUR (GMT)	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
0000Z	4.8	3.4	.0	.0	.0	.0	.0	8.2	1.4	1.4	3.4	.0	6.2	.0		79.5
0600Z	2.3	5.7	.0	.0	.0	.0	.0	8.0	1.1	1.1	3.4	.0	3.4	.0		82.8
1200Z	3.6	2.9	.7	.0	.0	.0	.0	7.1	.7	5.7	2.9	.0	3.6	.0		81.4
1800Z	6.1	2.4	1.2	.0	.0	.0	.0	9.8	1.2	3.7	2.4	.0	2.4	.0		80.5
TOT PCT TOT OBS:	4.2 435	3.5	.4	.0	.0	.0	.0	8.1	1.1	3.1	3.1	.0	4.2	.0		80.9

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL ORS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	2.1	3.9	1.7	1.6	.9	.0		10.1	12.8	7.5	9.6	7.4	11.5	13.3	10.6	14.1	6.0	
NE	2.4	2.7	1.9	1.3	.0	.0		8.4	10.0	7.2	12.2	6.1	5.2	7.8	11.7	7.7	10.7	
E	1.1	3.4	3.7	.2	.0	.0		8.8	10.0	12.8	10.1	13.5	7.3	7.8	2.2	5.1	9.5	
SE	1.7	5.5	3.7	.7	.1	.0		11.6	10.1	16.1	10.6	22.3	8.3	7.8	8.9	13.5	7.1	
S	1.7	7.9	1.3	.7	.1	.0		11.6	8.1	17.2	13.3	16.2	8.3	5.3	15.6	9.0	4.5	
SW	1.8	12.9	3.6	.0	.0	.0		18.3	8.0	21.4	28.2	16.9	18.8	15.0	12.2	14.1	19.0	
W	.6	11.5	2.9	.2	.0	.0		15.2	8.2	10.0	10.6	8.8	21.9	18.5	23.3	4.5	23.8	
NW	1.9	6.9	1.6	.5	.3	.0		11.2	8.6	6.7	5.3	3.4	14.6	18.9	15.6	14.1	7.1	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	4.6							4.6	.0	1.1	.0	5.4	4.2	5.6	.0	17.9	7.1	
TOT OBS	78	242	89	23	6	0	438	8.8		90	47	37	48	90	48	39	42	
TOT PCT	17.8	55.3	20.3	5.3	1.4	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL ORS	PCT FREQ	MEAN SPD	HOUR (GMT)			
		7-16	17-27	28-40	00 03					06 09	12 15	18 21	
N	4.3	3.0	1.2	1.6	.0		10.1	12.8	8.2	9.7	12.4	9.9	
NE	4.2	2.5	1.4	.3	.0		8.4	10.0	8.9	5.6	9.1	9.3	
E	3.5	4.0	1.3	.1	.0		8.8	10.0	11.9	10.0	5.9	7.4	
SE	3.9	5.7	1.8	.2	.0		11.6	10.1	14.2	14.4	8.1	10.2	
S	6.3	4.2	1.0	.1	.0		11.6	8.1	15.9	11.8	8.7	9.3	
SW	7.5	9.9	1.0	.0	.0		18.3	8.0	23.7	17.9	14.1	16.7	
W	6.7	8.2	.3	.0	.0		15.2	8.2	10.2	16.2	20.2	14.5	
NW	5.4	4.8	.7	.3	.0		11.2	8.6	6.2	9.7	17.8	10.5	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	4.6						4.6	.0	.7	4.7	3.7	12.3	
TOT ORS	203	185	38	12	0	438		8.8	137	85	135	81	
TOT PCT	46.3	42.2	8.7	2.7	.0		100.0		100.0	100.0	100.0	100.0	



PERIOD: (PRIMARY) 1924-1967  
(OVER-ALL) 1884-1967

MARCH

AREA 0021 BROOME  
16.65 121.3E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000	.7	13.9	55.5	21.2	5.8	2.9	.0	10.0	100.0		137
0600	4.7	12.4	56.5	23.5	7.4	.0	.0	8.0	100.0		85
1215	3.7	13.3	56.3	18.5	6.7	1.5	.0	8.8	100.0		135
1821	12.3	12.3	51.9	18.5	4.9	.0	.0	7.8	100.0		81
TOT	20	58	242	89	23	6	0	8.8			438
PCT	4.6	13.2	55.3	20.3	5.3	1.4	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	4.8	3.2	1.1	4.0		3.8
NE	3.8	1.3	1.3	2.7		4.0
E	5.4	2.6	1.8	2.2		3.5
SE	5.9	.2	3.4	5.3		4.8
S	6.7	2.2	.6	.5		2.1
SW	4.0	2.6	7.1	1.3		4.3
W	4.6	2.6	.5	.6		2.2
NW	3.7	2.7	1.6	1.3		3.3
VAR	.0	.0	.0	.0		.0
CALM	3.2	1.3	1.3	2.6		4.0
TOT OBS	66	29	29	37	156	3.7
TOT PCT	42.3	18.6	18.6	20.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	3.4	.6	.0	.0	.0	.0	.0	9.1	
NE	.0	.0	.0	1.3	.6	.0	.0	.0	.0	.0	5.4	
E	.0	.0	.0	.5	1.8	.6	.0	.0	.0	.0	8.5	
SE	.0	.0	.0	.8	2.6	1.3	.0	.0	.0	.0	10.1	
S	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	9.6	
SW	.0	.0	.0	.0	2.6	1.3	.6	.0	.0	.0	9.8	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.7	
NW	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	7.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.6	.0	.6	.0	.0	1.3	5.8	
TOT OBS	0	0	0	10	18	5	2	0	0	5	116	156
TOT PCT	.0	.0	.0	6.4	11.5	3.2	1.3	.0	.0	3.2	74.4	100.0

TABLE 7

CUMULATIVE PCT FRFQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
>6000	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
>5500	4.4	4.4	4.4	4.4	4.4	4.4	4.4	4.4
>5000	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
>4500	10.5	19.0	19.0	19.0	19.0	19.0	19.0	19.0
>4000	17.7	24.7	25.3	25.9	25.9	25.9	25.9	25.9
>3500	17.7	24.7	25.3	25.9	25.9	25.9	25.9	25.9
>3000	17.7	24.7	25.3	25.9	25.9	25.9	25.9	25.9
>2500	17.7	24.7	25.3	25.9	25.9	25.9	25.9	25.9
>2000	17.7	24.7	25.3	25.9	25.9	25.9	25.9	25.9
TOTAL	28	39	40	41	41	41	41	41

TOTAL NUMBER OF OBS: 158

PCT FREQ NH <5/8: 74.1

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	25.6	23.2	7.9	11.0	5.5	.0	7.9	2.4	14.5	164

PERIOD: (PRIMARY) 1924-1967  
(OVER-ALL) 1884-1967

MARCH

AREA 0021 BROOME  
16.65 121.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	
	NO PCP	.0	.0	.1	.7	1.0	1.3	.5	.3	.0	.0	3.9	
	TOT %	.5	.0	.1	.7	1.0	1.3	.5	.3	.0	.0	4.4	
2<5	PCP	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.5	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.5	
5<10	PCP	1.0	2.0	.5	.3	.3	.2	.1	.8	.0	.0	5.3	
	NO PCP	3.6	2.8	2.3	3.4	4.1	7.4	8.1	6.6	.0	1.1	39.5	
	TOT %	4.7	4.8	2.8	3.7	4.5	7.6	8.2	7.4	.0	1.1	44.8	
10+	PCP	.0	.0	.0	.2	.2	.2	.0	.2	.0	.2	1.1	
	NO PCP	4.7	3.4	6.0	7.1	7.7	9.1	6.7	3.3	.0	3.0	49.0	
	TOT %	4.7	3.4	6.0	7.3	7.9	9.4	6.7	3.6	.0	3.2	50.1	
TOT OBS													435
TOT PCT													100.0

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.2	.1	.1	.0	.0	.5	
	4-10	.2	.0	.0	.2	.5	1.0	.3	.2	.0	.0	2.5	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	22+	.2	.0	.1	.2	.6	.0	.0	.0	.0	.0	1.1	
	TOT %	.5	.0	.1	.7	1.0	1.3	.5	.3	.0	.0	4.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.5	
	TOT %	.2	.3	.0	.0	.0	.0	.0	.0	.0	.0	.5	
5<10	0-3	1.3	.9	.3	.5	.8	.6	.3	1.7	.0	1.1	7.6	
	4-10	1.5	1.3	1.2	1.6	2.8	5.2	5.5	4.1	.0	.0	23.2	
	11-21	.5	1.5	1.1	1.1	.7	1.8	2.2	1.3	.0	.0	10.1	
	22+	1.4	1.0	.1	.6	.2	.0	.2	.3	.0	.0	3.9	
	TOT %	4.7	4.8	2.8	3.7	4.5	7.6	8.2	7.4	.0	1.1	44.8	
10+	0-3	.7	1.5	.7	1.2	.6	.8	.2	.2	.0	3.2	9.2	
	4-10	2.0	1.4	2.7	3.7	4.7	6.7	5.8	2.6	.0	.0	29.7	
	11-21	1.3	.5	2.5	2.4	.6	1.8	.7	.3	.0	.0	10.1	
	22+	.7	.0	.0	.0	.0	.0	.0	.5	.0	.0	1.1	
	TOT %	4.7	3.4	6.0	7.3	6.0	9.4	6.7	3.6	.0	3.2	50.1	
TOT OBS													435
TOT PCT													100.0

## MARCH

PERIOD: (PRIMARY) 1924-1967  
(OVER-ALL) 1894-1967AREA 0021 BROOME  
16.65 121.3E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL OBS	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	8.7	17.4	6.5	.0	.0	.0	2.2	34.8	65.2	46
06009	.0	.0	.0	5.3	5.3	2.6	.0	.0	.0	5.3	18.4	81.6	38
12015	.0	.0	.0	10.0	7.5	.0	.0	.0	.0	5.0	22.5	77.5	40
18021	.0	.0	.0	2.7	13.5	2.7	5.4	.0	.0	.0	24.3	75.7	37
TOT	0	0	0	11	18	5	2	0	0	5	41	120	161
PCT	.0	.0	.0	6.8	11.2	3.1	1.2	.0	.0	3.1	25.5	74.5	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	6.2	1.4	43.2	49.3	146
06009	.0	.0	3.4	.0	41.4	55.2	87
12015	.0	.0	3.6	.0	54.3	42.1	140
18021	1.2	.0	2.4	.0	43.9	52.4	82
TOT	1	0	10	2	211	222	455
PCT	.2	.0	4.2	.4	46.4	48.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	8.7	26.1	65.2	46
06009	.0	.0	5.3	13.2	81.6	38
12015	.0	.0	10.3	12.8	76.9	39
18021	.0	2.9	5.7	22.9	71.4	35
TOT	0	1	12	30	116	158
PCT	.0	.6	7.6	19.0	73.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.6	.6	.0	.0	.0	6	1.7
85/89	.0	.0	.3	2.9	6.6	20.2	19.1	2.2	184	51.0
80/84	.0	.0	.0	.0	3.0	11.4	22.2	6.1	154	42.7
75/79	.0	.0	.0	.0	.6	.3	1.1	2.5	16	4.4
70/74	.0	.0	.0	.0	.0	.0	.0	.3	1	.3
TOTAL	0	0	1	11	39	117	153	40	361	100.0
PCT	.0	.0	.3	3.0	10.8	32.4	42.4	11.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90	.0	.3	.2	.2	.7	.0	.0	.3	.0	.0
85	3.5	2.4	4.8	4.8	6.7	12.4	8.6	4.0	.0	3.9
80	3.3	4.4	4.2	6.0	2.6	6.8	7.8	6.6	.0	1.1
75	1.1	.8	.3	1.5	.1	.0	.0	.6	.0	.0
70	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT	8.1	7.8	9.4	12.5	10.2	19.2	16.3	11.5	.0	5.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	88	87	85	79	77	77	84.2	145
06009	93	92	90	86	81	78	78	85.8	84
12015	91	89	88	84	80	78	77	84.1	135
18021	90	89	86	84	79	74	74	83.3	78
TOT	93	90	88	85	79	77	74	84.3	442

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	2.5	13.1	34.4	40.2	9.8	78	122		
06009	.0	4.1	16.2	41.9	32.4	5.4	76	74		
12015	.0	3.4	7.7	30.8	47.9	10.3	79	117		
18021	.0	3.0	7.6	21.2	45.5	22.7	82	86		
TOT	0	12	42	123	159	43	79	379		

MARCH

PERIOD: (PRIMARY) 1924-1967  
(OVER-ALL) 1884-1967

TABLE 17

AREA 0021 BROOME  
16.6S 121.3EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	NO FOG
14/16	.0	.0	.0	.3	.0	.0	1	.0	.3
11/13	.0	.0	.0	.7	.0	.0	2	.0	.7
9/10	.0	.0	.3	.7	.0	.0	3	.0	1.0
7/8	.0	.0	.3	1.0	.0	.0	4	.0	1.4
6	.0	.0	.0	.3	.0	.0	1	.0	.3
5	.0	.0	.0	.3	.3	.0	2	.0	.7
4	.0	.0	.3	1.0	.0	.3	5	.0	1.7
3	.0	.0	1.4	3.1	1.7	.0	18	.0	6.2
2	.0	.0	.7	5.2	.7	.0	19	.3	6.2
1	.0	.0	3.8	5.9	.3	.0	29	.0	10.0
0	.0	1.0	7.3	12.1	.0	.0	59	2.8	17.6
-1	.0	.7	6.9	9.7	.0	.0	50	1.0	16.3
-2	.0	1.4	9.0	3.8	.0	.0	41	.3	13.8
-3	.0	1.4	3.1	2.1	.0	.0	19	.3	6.2
-4	.0	.3	2.8	1.4	.0	.0	13	.0	4.5
-5	.0	1.4	2.8	.0	.0	.0	12	.0	4.2
-6	.0	1.0	.0	.0	.0	.0	3	.0	1.0
-7/-8	.0	1.7	.3	.0	.0	.0	6	.0	2.1
-9/-10	.0	.3	.0	.0	.0	.0	1	.0	.3
-11/-13	.3	.0	.0	.0	.0	.0	1	.0	.3
TOTAL	1	27	113	138	9	1	289	14	275
PCT	.3	9.3	39.1	47.8	3.1	.3	100.0	4.8	95.2

PERIOD: (OVER-ALL) 1953-1967

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	1.6	.0	.0	.0	.0	2.3	.2	.2	.0	.0	.0	.0	.5
1-2	.0	2.9	.0	.0	.0	.0	2.9	.9	.7	.0	.0	.0	.0	1.6
3-4	.0	.0	2.7	.0	.0	.0	2.7	.0	.0	2.7	.0	.0	.0	2.7
5-6	.0	.7	.0	.9	.0	.0	1.6	.0	.0	.0	.9	.0	.0	.9
7	.0	.0	.0	2.3	.0	.0	2.3	.0	.0	.0	.5	.0	.0	.5
8-9	.0	.0	.0	1.6	.0	.0	1.6	.0	.0	.0	1.1	.0	.0	1.1
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.2	2.7	4.7	.0	.0	13.3	1.1	.9	2.7	2.5	.0	.0	7.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	4.5	.0	.0	.0	.0	5.2	.9	4.5	.0	.0	.0	.0	5.4
1-2	.0	3.8	2.3	.0	.0	.0	6.1	.0	4.1	.5	.0	.0	.0	4.5
3-4	.7	1.4	.0	.0	.0	.0	2.0	.2	2.3	3.6	.0	.0	.0	6.1
5-6	.0	.0	2.7	.0	.0	.0	2.7	.0	.0	.9	.0	.0	.0	.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	9.7	5.0	.0	.0	.0	16.0	1.1	10.8	5.2	.0	.0	.0	17.1

PERIOD: (OVER-ALL) 1963-1967

MARCH

AREA 0021 BROOME  
16.6S 121.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.9	.0	.0	.0	.0	.9	2.0	4.5	.0	.0	.0	.0	5.5
1-2	.0	2.5	.0	.0	.0	.0	2.5	.0	8.6	.0	.0	.0	.0	8.6
3-4	.0	1.6	1.8	.0	.0	.0	3.4	.0	1.4	.0	.0	.0	.0	1.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.7	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.0	2.5	.0	.0	.0	7.4	2.0	14.4	.0	.0	.0	.0	16.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.7	.0	.0	.0	.0	.0	.7	.2	.9	.0	.0	.0	.0	1.1	
1-2	.0	2.5	.0	.0	.0	.0	2.5	.0	4.7	.0	.0	.0	.0	5.6	
3-4	.0	.7	.0	.0	.0	.0	.7	.0	.0	.0	.9	.0	.0	.9	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.7	3.2	.0	.0	.0	.0	3.8	.2	5.9	.9	.9	.0	.0	7.9	89.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	16.2	17.1	.0	.0	.0	.0	33.3	
1-2	.9	29.7	3.6	.0	.0	.0	34.2	
3-4	.9	7.2	10.8	.9	.0	.0	19.8	
5-6	.0	.9	3.6	1.8	.0	.0	6.3	
7	.0	.0	.9	2.7	.0	.0	3.6	
8-9	.0	.0	.0	2.7	.0	.0	2.7	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	18.0	55.0	18.9	8.1	.0	.0	100.0	111

PERIOD: (OVER-ALL) 1954-1967

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	14.2	23.9	9.7	2.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	58	2
6-7	.0	3.5	6.2	6.2	.0	.9	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	4
8-9	.0	.0	.9	4.4	1.8	.9	.0	.9	1.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12	7
10-11	.0	.0	.9	4.4	.0	.0	.0	.9	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10	8
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	10.4	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	0
TOTAL	24.8	31	21	20	3	2	0	2	6	0	0	0	0	0	0	0	0	0	0	113	3
PCT	24.8	27.4	18.6	17.7	2.7	1.8	.0	1.8	5.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1891-1969

APRIL

AREA 0021 BROOME  
16.75 121.4E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	9.3	.0	.0	.0	.0	.0	9.3	.0	1.9	.0	.0	.0	.0	88.9
NE	2.4	3.5	.0	.0	.0	.0	.0	5.9	.0	4.7	.0	.0	2.4	.0	87.1
E	.0	3.3	.0	.0	.0	.0	.0	3.3	.0	1.0	1.1	.0	4.3	.0	91.3
SE	.0	1.7	.0	.0	.0	.0	.0	1.7	.0	1.1	4.0	.0	1.1	.0	92.1
S	1.3	.6	.0	.0	.0	.0	.0	1.9	.0	4.1	1.9	.0	2.5	.0	89.6
SW	.0	1.3	.0	.0	.0	.0	.0	1.3	.0	2.3	3.9	.0	.0	.0	92.5
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.8	5.8	.0	.0	.0	86.4
NW	2.9	7.1	2.9	.0	.0	.0	.0	10.0	.0	2.9	2.9	.0	.0	.0	84.3
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.7	.0	.0	.0	.0	94.3
TOT PCT	.5	2.6	.2	.0	.0	.0	.0	3.1	.0	3.0	2.3	.0	1.4	.0	90.2
TOT OBS:	472														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00:03	.5	3.2	.0	.0	.0	.0	.0	3.8	.0	.5	2.7	.0	2.2	.0	90.8
06:09	.0	2.7	.0	.0	.0	.0	.0	2.7	.0	.0	1.8	.0	.9	.0	94.5
12:15	.5	2.7	.0	.0	.0	.0	.0	3.3	.0	4.3	2.7	.0	1.1	.0	88.6
18:21	.8	1.6	.8	.0	.0	.0	.0	2.4	.0	6.5	3.3	.0	.8	.0	87.0
TOT PCT	.5	2.7	.2	.0	.0	.0	.0	3.2	.0	2.8	2.7	.0	1.3	.0	90.0
TOT OBS:	602														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21		
N	1.5	5.0	2.0	.8	.2	.0	9.4	9.8	5.6	7.5	4.6	10.1	13.8	11.9	5.3	12.3			
NE	.4	4.4	2.5	.1	.2	.0	7.7	9.6	4.7	9.0	5.9	11.6	8.3	8.7	4.8	8.0			
E	1.7	8.1	5.3	1.0	.0	.0	16.1	10.1	25.2	19.4	30.9	20.3	9.0	9.5	10.6	8.0			
SE	2.3	7.4	4.8	.9	.0	.0	15.4	9.5	16.1	27.6	3.3	19.6	11.4	10.3	2.7	24.5			
S	3.9	8.7	1.2	.1	.0	.0	13.8	6.6	18.5	14.9	17.1	6.5	13.2	7.1	17.0	15.9			
SW	1.3	10.9	1.1	.0	.0	.0	13.3	6.8	15.0	11.2	15.1	8.7	11.2	20.6	17.0	10.9			
W	2.7	5.7	.7	.0	.0	.0	9.0	5.1	6.1	6.7	8.6	10.9	10.3	11.1	9.6	9.4			
NW	1.5	3.7	.3	.5	.0	.0	6.1	7.4	5.1	.7	1.3	6.5	10.5	6.3	9.6	5.1			
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0			
CALM	9.2						9.2	.0	3.7	3.0	13.2	5.8	12.3	14.3	23.4	5.8			
TOT DBS	141	309	103	19	2	0	574		107	67	38	69	114	63	47	69			
TOT PCT	24.6	53.8	17.9	3.3	.3	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0			

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	03	06	12
N	4.9	2.8	1.2	.5	.0	9.4	9.8	6.3	8.2	13.1	9.5
NE	3.6	3.0	.9	.2	.0	7.7	9.6	6.3	9.6	8.5	6.7
E	6.4	6.6	3.0	.2	.0	16.1	10.1	23.0	24.1	9.2	9.1
SE	5.8	7.3	2.3	.0	.0	15.4	9.5	20.5	13.8	11.0	15.7
S	7.1	6.2	.4	.0	.0	13.8	6.6	17.1	10.3	11.0	16.4
SW	7.1	6.1	.2	.0	.0	13.3	6.8	13.5	11.0	14.5	13.4
W	7.1	1.9	.0	.0	.0	9.0	5.1	6.3	10.0	10.6	9.5
NW	3.9	1.7	.2	.3	.0	6.1	7.4	3.4	4.7	9.0	6.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	9.2					9.2	.0	3.4	8.4	13.0	12.9
TOT DBS	316	204	47	7	574		7.5	174	107	177	116
TOT PCT	55.1	35.5	8.2	1.2	.0	100.0		100.0	100.0	100.0	100.0

APRIL

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1891-1969AREA 0021 BROOME  
16.75 121.4E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+		
0603	3.4	15.5	52.9	23.6	4.6	.0	.0	8.5	174
0609	8.4	15.9	53.3	15.9	4.7	1.9	.0	8.1	107
17615	13.0	13.0	58.2	13.0	2.8	.0	.0	6.7	177
18621	12.9	18.1	49.1	19.0	.9	.0	.0	6.6	116
TOT	93	88	309	103	19	2	0	7.5	574
PCT	9.2	15.3	53.8	17.9	3.3	.3	.0	100.0	

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT  
(EIGHTHS) BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBS	TOTAL OBS	MEAN CLOUD COVER
N	3.2	2.2	1.2	2.3	3.7	3.7
NE	5.4	.2	.6	.6	1.5	1.5
E	15.1	1.2	.6	.6	1.2	1.2
SE	2.3	1.4	.0	.0	1.5	1.5
S	14.7	3.2	.0	.6	1.2	1.2
SW	11.7	1.9	2.5	.0	1.5	1.5
W	5.1	3.2	.0	.0	1.2	1.2
NW	5.4	.9	.6	.2	1.5	1.5
VAR	.0	.0	.0	.0	.0	.0
CALM	10.5	1.2	1.2	.0	1.0	1.0
TOT OBS	119	25	11	7	162	1.5
TOT PCT	73.5	15.4	6.8	4.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.6	1.9	1.1	.0	.0	.0	.0	5.4	
NE	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	5.2	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17.6	
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7	
S	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	17.9	
SW	.0	.0	.0	.0	.0	.6	.6	.0	.0	.0	14.2	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	
NW	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	6.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.0	
TOT OBS	0	0	0	2	4	3	1	0	0	1	151	162
TOT PCT	.0	.0	.0	1.2	2.5	1.9	.6	.0	.0	.6	93.2	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.6	.6	.6	.6	.6	.6	.6	.6
>5000	.6	.6	.6	.6	.6	.6	.6	.6
>3500	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
>2000	2.5	3.1	3.1	3.1	3.1	3.1	3.1	3.1
>1000	3.7	5.6	5.6	5.6	5.6	5.6	5.6	5.6
>800	3.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8
>700	3.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8
>600	3.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8
>500	3.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8
>0	3.7	6.8	6.8	6.8	6.8	6.8	6.8	6.8
TOTAL	6	11	11	11	11	11	11	11

TOTAL NUMBER OF OBS: 162

PCT FREQ NH &lt;5/8: 93.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
	55.0	17.8	12.4	5.3	1.2	1.8	1.2	.6	4.7	.0	169

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1891-1969

APRIL

AREA 0021 BROOME  
16.75 121.4E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.5	.2	.3	.0	.0	.0	.0	.0	1.0	
	TOT %	.0	.0	.5	.2	.3	.0	.0	.0	.0	.0	1.0	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	PCP	.6	.4	.5	.3	.3	.2	.0	.4	.0	.0	3.0	
	NO PCP	4.9	4.1	8.9	12.6	6.7	6.6	5.3	2.4	.0	4.7	56.3	
	TOT %	5.6	4.5	9.4	12.8	7.0	6.8	5.3	2.8	.0	4.7	59.3	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	NO PCP	3.7	2.9	6.1	2.4	6.5	6.6	3.7	3.1	.0	4.5	39.5	
	TOT %	3.7	2.9	6.1	2.4	6.5	6.6	3.7	3.3	.0	4.5	39.7	
TOT OBS													572
TOT PCT		9.4	7.4	16.1	15.4	13.9	13.4	9.0	6.1	.0	9.3	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.3	.1	.0	.0	.0	.0	.0	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.3	.2	.3	.0	.0	.0	.0	.0	.9	
	11-21	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.5	.2	.3	.0	.0	.0	.0	.0	1.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	0-3	1.0	.3	1.4	1.9	2.3	.7	2.2	1.2	.0	4.7	15.7	
	4-10	2.5	2.4	4.9	5.9	3.9	5.7	2.9	.9	.0		29.1	
	11-21	1.3	1.5	2.3	4.2	.7	.4	.3	.2	.0		10.8	
	22+	1.0	.3	.9	.8	.1	.0	.0	.5	.0		3.5	
	TOT %	5.7	4.5	9.4	12.8	7.0	6.8	5.3	2.8	.0	4.7	59.1	
10+	0-3	.5	.1	.3	.4	1.6	.6	.5	.3	.0	4.5	8.9	
	4-10	2.4	2.0	2.9	1.3	4.4	5.2	2.8	2.8	.0		23.9	
	11-21	.7	.8	2.8	.6	.5	.7	.4	.2	.0		6.6	
	22+	.0	.0	.1	.1	.0	.0	.0	.0	.0		.2	
	TOT %	3.7	2.9	6.1	2.4	6.5	6.5	3.7	3.3	.0	4.5	39.5	
TOT OBS													574
TOT PCT		9.4	7.7	16.1	15.4	13.8	13.3	9.0	6.1	.0	9.2	100.0	

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1891-1969

APRIL

AREA 0021 BROOME  
16.7S 121.4E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HR (GMT)	000 149	150 299	300 599	600 999	1000 1499	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL DBS	NH < 5/8 ANY HGT	TOTAL DBS
00003	.0	.0	.0	.0	5.0	.0	.0	.0	.0	.0	5.0	95.0	40
06009	.0	.0	.0	2.6	2.6	.0	.0	.0	.0	.0	5.1	94.9	39
12015	.0	.0	.0	2.3	2.3	4.7	.0	.0	.0	.0	9.3	90.7	43
18021	.0	.0	.0	.0	.0	2.3	2.3	.0	.0	2.3	6.8	93.2	44
TOT	0	0	0	2	4	9	1	0	0	1	11	155	166
PCT	.0	.0	.0	1.2	2.4	1.6	.6	.0	.0	.6	6.6	93.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL DBS
00003	.0	.0	2.2	.0	62.7	35.1	185
06009	.9	.0	.9	.0	55.9	42.3	111
12015	.5	.0	.5	.0	64.3	34.6	185
18021	.0	.0	.0	.0	52.0	48.0	123
TOT	2	0	6	0	361	235	604
PCT	.3	.0	1.0	.0	59.8	38.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH > 4/8) BY HOUR

HR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL DBS
00003	.0	.0	.0	5.1	94.9	39
06009	.0	.0	2.6	2.6	94.9	39
12015	.0	.0	2.5	7.5	90.0	40
18021	.0	.0	.0	6.8	93.2	44
TOT	0	0	2	9	151	162
PCT	.0	.0	1.2	5.5	93.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL DBS	PCT FREQ
90/94	.0	.0	.2	.8	1.0	.6	.2	.0	14	2.9
85/89	.0	.8	2.1	4.4	8.3	12.5	6.5	.4	168	35.0
80/84	.0	.0	1.7	7.7	9.4	15.4	21.5	3.8	285	59.4
75/79	.0	.0	.2	.4	.7	.8	.0	1.0	13	2.7
TOTAL	0	4	20	64	91	141	135	25	480	100.0
PCT	.0	.8	4.2	13.3	19.0	29.4	28.1	5.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.2	.5	.6	.5	.6	.2	.0	.0	.0	.2
85/89	1.9	1.7	6.1	6.8	3.3	6.6	4.0	2.0	.0	2.5
80/84	7.3	4.6	8.3	7.9	9.5	7.5	5.2	3.5	.0	5.4
75/79	.1	.1	.7	1.3	.5	.0	.0	.0	.0	.0
TOTAL	9.6	6.9	15.8	16.5	14.0	14.3	9.2	5.6	.0	8.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL DBS
00003	91	90	89	84	80	77	76	84.1	173
06009	91	90	90	86	81	78	78	85.7	97
12015	90	87	86	84	81	77	75	83.6	177
18021	87	86	86	83	78	76	76	82.8	113
TOT	91	90	88	84	80	77	75	84.0	560

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL DBS
00003	.0	18.5	22.9	31.2	21.0	6.4	71	157		
06009	.0	26.1	26.1	31.8	13.6	2.3	56	88		
12015	.0	13.3	19.0	29.1	34.2	4.4	74	158		
18021	.0	15.7	9.8	25.5	42.2	6.9	75	102		
TOT	0	89	99	149	142	26	72	505		

APRIL

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1891-1969

TABLE 17

AREA 0021 BROOME  
16.75 121.4EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WU FOG
9/10	.0	.0	.3	.3	.0	2	.0	.6
7/8	.0	.3	.9	.6	.3	7	.0	2.2
6	.0	.0	.0	.0	.6	2	.0	.6
5	.0	.0	.9	1.6	.3	9	.0	2.8
4	.0	.3	.3	1.3	1.3	10	.0	3.1
3	.0	.6	.6	3.4	1.3	19	.3	5.6
2	.0	.0	2.5	8.8	.3	37	.6	10.9
1	.0	.6	5.3	9.1	.0	48	1.3	13.8
0	.0	.0	6.6	5.9	.0	40	1.9	10.6
-1	.0	.0	13.4	3.1	.0	53	.6	15.9
-2	.3	.6	8.8	.6	.0	33	.0	10.3
-3	.0	.6	8.8	1.3	.0	34	.3	10.3
-4	.0	1.3	4.4	.0	.0	18	.0	5.6
-5	.0	.6	.6	.0	.0	4	.0	1.3
-6	.0	.3	.3	.0	.0	2	.0	.6
-7/-8	.3	.3	.0	.0	.0	2	.0	.6
TOTAL	2		172		13	320	16	304
PCT	.6	18	53.8	35.9	4.1	100.0	5.0	95.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	3.8	.0	.0	.0	.0	3.8	.0	1.4	.0	.0	.0	.0	1.4
1-2	.0	1.0	.0	.0	.0	.0	1.0	.0	1.0	.0	.0	.0	.0	1.0
3-4	.0	.7	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	1.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	.0	.0	.0	1.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	1.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	1.0	.0	1.0	.0	.0	.0	.0	1.0	.0	1.0
13-16	.0	.0	1.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.5	1.9	1.0	1.0	.0	9.3	.0	2.4	1.2	.0	1.0	.0	4.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	5.7	1.0	.0	.0	.0	6.7	.0	2.9	.0	.0	.0	.0	2.9
3-4	.0	1.0	1.9	.0	.0	.0	2.9	.0	.0	1.0	.0	.0	.0	1.0
5-6	.0	.0	1.9	.0	.0	.0	1.9	.0	1.0	.0	.0	.0	.0	1.0
7	.0	.0	1.7	.0	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	7.6	6.4	.0	.0	.0	14.0	.0	3.8	1.0	.0	.0	.0	4.8



PERIOD: (OVER-ALL) 1963-1969

APRIL

AREA 0021 BROOME  
16.75 121.4E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	4.5	3.6	1.0	.0	.0	.0	9.0	2.1	2.1	.0	.0	.0	.0	4.3
1-2	.0	11.9	.0	.0	.0	.0	11.9	.0	11.2	1.2	.0	.0	.0	12.4
3-4	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	1.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	4.5	15.5	1.0	.0	.0	.0	21.0	2.1	14.3	1.2	.0	.0	.0	17.6

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	1.0	.0	.0	.0	.0	.0	1.0	1.0	2.4	.0	.0	.0	.0	3.3	
1-2	.0	3.6	.7	.0	.0	.0	4.3	.0	1.0	.0	.0	.0	.0	1.0	
3-4	.0	.0	1.0	.0	.0	.0	1.0	.0	2.1	.0	.0	.0	.0	2.1	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.0	3.6	1.7	.0	.0	.0	6.2	1.0	5.5	.0	.0	.0	.0	6.4	83.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	24.8	14.3	1.0	.0	.0	.0	40.0	
1-2	.0	36.1	2.9	.0	.0	.0	41.0	
3-4	.0	4.8	3.8	.0	.0	.0	8.6	
5-6	.0	1.0	2.9	.0	.0	.0	3.8	
7	.0	.0	2.9	.0	.0	.0	2.9	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	1.0	.0	.0	1.0	
12	.0	.0	.0	.0	1.9	.0	1.9	
13-16	.0	.0	1.0	.0	.0	.0	1.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	24.8	53.1	14.3	1.0	1.9	.0	100.0	105

PERIOD: (OVER-ALL) 1962-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	16.0	27.4	4.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	52	2
6-7	.9	2.8	5.7	5.7	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	4
8-9	.0	4.7	1.9	.0	.0	.0	.0	.0	.0	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	9	6
10-11	.0	.9	.0	.0	1.9	1.9	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0	.0	7	10
12-13	.0	.0	.0	.9	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	13
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
INDET	17.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	0
TOTAL	37	38	13	8	3	2	0	0	0	1	4	0	0	0	0	0	0	0	0	106	3
PCT	34.9	35.8	12.3	7.5	2.8	1.9	.0	.0	.0	.9	3.8	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1887-1969

MAY

AREA 0021 BROOME  
16.55 121.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZG PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG W/ PCPN	FOG W/ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	4.0	4.0	.0	.0	.0	.0	.0	8.1	3.0	.0	.0	.0	12.1	.0	76.8	
NE	.9	.9	.0	.0	.0	.0	.0	1.8	.4	.0	1.8	.0	4.4	.0	91.6	
E	1.8	.7	.0	.0	.0	.0	.0	2.5	.5	.5	3.7	.0	1.8	.0	91.3	
SE	1.4	1.0	.0	.0	.0	.0	.0	2.4	.5	1.4	3.4	.0	2.0	.0	90.6	
S	.0	2.3	.0	.0	.0	.0	.0	2.3	.0	.0	1.7	.0	.6	.0	95.4	
SW	3.2	.0	.0	.0	.0	.0	.0	3.2	.0	.0	10.5	.0	1.6	.0	84.7	
W	2.8	5.6	.0	.0	.0	.0	.0	8.5	.0	.0	2.8	.0	5.6	.0	83.1	
NW	2.8	5.6	.0	.0	.0	.0	.0	8.5	.0	.0	.0	.0	.0	.0	91.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	2.6	.0	.0	.0	5.1	.0	92.3	
TOT PCT	1.5	1.3	.0	.0	.0	.0	.0	2.8	.6	.6	3.3	.0	2.5	.0	90.4	
TOT OBS:	718															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHR	DRZL	FRZG PCPN	SNOW	OTHER FRZG PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00603	2.0	1.6	.0	.0	.0	.0	.0	3.6	.8	.4	4.0	.0	3.6	.0	88.1
06009	.7	1.4	.0	.0	.0	.0	.0	2.2	.0	.0	2.9	.0	3.6	.0	91.4
12015	1.8	2.2	.0	.0	.0	.0	.0	4.0	.0	.9	3.5	.0	1.3	.0	90.3
18021	1.3	.0	.0	.0	.0	.0	.0	1.3	1.3	1.3	2.0	.0	.7	.0	92.7
TOT PCT	1.5	1.4	.0	.0	.0	.0	.0	3.0	.5	.6	3.4	.0	2.3	.0	90.3
TOT OBS:	770														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.9	1.9	.6	.0	.0	.0		3.4	6.6		1.6	1.5	3.2	4.8	4.9	4.7	.0	6.7
NE	.5	3.6	3.6	.1	.0	.0		7.8	10.6		8.4	6.9	3.2	12.7	10.1	7.4	.0	7.3
E	2.5	13.0	10.0	1.4	.0	.0		27.0	10.7		28.3	35.9	25.5	27.7	24.3	22.3	28.2	20.8
SE	2.6	15.7	9.0	2.4	.0	.0		30.6	10.5		37.6	33.4	31.9	25.9	21.1	31.8	22.7	37.5
S	1.6	8.0	2.5	.0	.0	.0		12.2	7.7		9.7	10.9	14.4	9.6	11.8	12.2	17.7	15.3
SW	1.8	5.6	1.3	.0	.0	.0		8.7	6.6		6.4	4.0	3.2	9.0	16.2	11.5	13.6	3.9
W	.6	1.6	.1	.1	.0	.0		2.4	7.0		1.2	.5	5.9	3.0	3.9	.7	6.4	1.1
NW	.3	2.0	.2	.0	.0	.0		2.4	6.8		.0	1.0	6.4	2.4	2.6	4.1	2.3	4.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.5							5.5	.0		6.9	5.0	6.4	4.8	5.2	5.4	9.1	2.2
TOT OBS	119	374	206	29	0	0	728		9.0		145	101	47	83	134	74	55	89
TOT PCT	16.3	51.4	28.3	4.0	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00	03	09	18
N	2.0	1.3	.1	.0	.0		3.4	6.6	1.5	4.2	4.8	3.8
NE	1.7	4.9	1.2	.0	.0		7.8	10.6	7.8	9.2	9.1	4.5
E	6.7	15.4	4.5	.4	.0		27.0	10.7	31.8	26.9	23.6	23.6
SE	10.0	14.9	5.4	.3	.0		30.6	10.5	35.9	28.1	24.9	31.9
S	5.9	5.6	.8	.0	.0		12.2	7.7	10.2	11.3	11.9	16.8
SW	4.9	3.6	.1	.0	.0		8.7	6.6	5.4	6.9	14.5	7.6
W	1.6	.7	.0	.1	.0		2.4	7.0	.9	4.0	2.8	3.1
NW	1.4	.8	.2	.0	.0		2.4	6.8	.4	3.8	3.1	3.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	5.5						5.5	.0	6.1	5.4	5.3	4.9
TOT OBS	289	344	89	6	0	728		9.0	246	130	208	144
TOT PCT	39.7	47.3	12.2	.8	.0		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1922-1949  
(OVER-ALL) 1887-1969

MAY

AREA 0021 BROOME  
16.55 121.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				MEAN	PCT FREQ	TOTAL DBS
				11-21	22-33	34-47	48+			
00003	6.1	8.5	47.2	33.3	4.9	.0	.0	9.8	100.0	246
06009	5.4	10.0	55.4	25.4	3.8	.0	.0	8.7	100.0	130
12015	5.3	11.1	56.3	26.0	1.4	.0	.0	8.2	100.0	208
18021	4.9	15.3	47.9	25.7	6.3	.0	.0	9.0	100.0	144
TOT	.0	7.9	37.4	20.6	2.9	.0	.0	9.0		728
PCT	5.5	10.9	51.4	28.3	4.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & DBSCD	TOTAL DBS	MEAN CLOUD COVER
N	1.2	.0	.4	.0		1.8
NE	1.2	.1	1.1	.1		3.7
E	23.4	.9	.0	1.2		.8
SE	20.6	2.9	2.4	1.1		1.6
S	11.1	.9	1.5	.4		1.4
SW	10.2	.1	1.0	.1		.6
W	4.1	.0	.9	.5		2.0
NW	3.2	.0	.1	.0		.8
VAR	.0	.0	.0	.0		.0
CALM	7.3	1.0	1.0	.0		1.2
TOT DBS	169	12	17	7	205	1.3
TOT PCT	82.4	5.9	8.3	3.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	DBS
.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	1.2	
.0	.0	.0	.1	.6	.0	.0	.0	.0	.0	1.8	
.0	.0	.4	.0	.4	.5	.0	.0	.0	.0	24.3	
.0	.0	.1	.5	1.5	.0	.5	.0	.0	.0	24.5	
.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	12.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.0	
.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	4.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3.2
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	8.8	
.0	.0	1	2	5	5	0	1	0	3	188	205
.0	.0	.5	1.0	2.4	2.4	.0	.5	.0	1.5	91.7	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
>4000	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
>3500	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
>3000	3.9	4.4	4.4	4.4	4.4	4.4	4.4	4.4
>2000	5.4	6.4	6.4	6.4	6.4	6.4	6.4	6.4
>1000	6.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
>800	6.9	7.8	7.8	7.8	7.8	7.8	7.8	7.8
>400	6.9	7.8	7.8	7.8	7.8	7.8	7.8	7.8
>150	6.9	7.8	7.8	7.8	7.8	7.8	7.8	7.8
>0	6.9	7.8	7.8	7.8	7.8	7.8	7.8	7.8
TOTAL	14	16	16	16	16	16	16	16

TOTAL NUMBER OF DBS: 204

PCT FREQ NH <5/8: 92.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8 (DBSCD)	TOTAL DBS
58.1	17.2	7.4	2.3	5.6	2.3	2.3	1.9	2.8	215

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1887-1969

MAY

TABLE 8

AREA 0071 BROOME  
16.95 121.5E

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF PRECIPITATION WITH VARYING VALUES OF VISIBILITY													
VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.4	.3	.5	.6	.1	.1	.1	.0	.0	.3	2.5	.0
	TOT %	.4	.3	.5	.6	.1	.1	.1	.0	.0	.3	2.5	.0
2<5	PCP	.0	.1	.2	.1	.0	.0	.0	.0	.0	.0	.4	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
	TOT %	.0	.1	.2	.1	.0	.0	.0	.0	.0	.1	.6	.0
5<10	PCP	.3	.1	.3	.0	.3	.1	.2	.2	.0	.0	2.1	.0
	NO PCP	1.8	5.7	16.3	20.2	7.7	5.1	.6	1.2	.0	2.6	61.1	.0
	TOT %	2.1	5.8	16.6	20.8	7.9	5.2	.8	1.4	.0	2.6	63.2	.0
10+	PCP	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.3	.0
	NO PCP	.9	1.6	9.3	9.2	4.2	3.1	1.6	1.1	.0	2.4	33.4	.0
	TOT %	.9	1.6	9.4	9.3	4.2	3.3	1.6	1.1	.0	2.4	33.7	.0
TOT OBS													
TOT PCT													
		3.4	7.9	26.7	30.8	12.2	8.6	2.5	2.5	.0	5.4	100.0	718

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.3	.0	.1	.1	.0	.0	.0	.0	.0	.3	.7	.0
	4-10	.1	.2	.1	.6	.1	.1	.1	.0	.0	.0	1.4	.0
	11-21	.0	.1	.3	.0	.0	.0	.0	.0	.0	.0	.4	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.4	.3	.5	.6	.1	.1	.1	.0	.0	.3	2.5	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.1	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.1	.2	.1	.0	.0	.0	.0	.0	.0	.4	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.1	.2	.1	.0	.0	.0	.0	.0	.1	.6	.0
5<10	0-3	.5	.3	1.5	2.4	1.2	1.3	.3	.2	.0	2.6	10.4	.0
	4-10	1.1	2.3	9.7	10.3	5.3	3.0	.3	1.0	.0	.0	33.0	.0
	11-21	.5	3.1	5.4	6.4	1.4	.9	.0	.2	.0	.0	17.9	.0
	22+	.0	.1	.3	1.6	.0	.0	.1	.0	.0	.0	2.1	.0
	TOT %	2.1	5.8	16.8	20.8	7.9	5.2	.8	1.4	.0	2.6	63.4	.0
10+	0-3	.1	.2	1.0	.1	.4	.5	.3	.1	.0	2.4	5.1	.0
	4-10	.7	1.1	3.2	4.9	2.7	2.4	1.1	1.0	.0	.0	17.1	.0
	11-21	.1	.3	4.0	3.4	1.1	.3	.1	.0	.0	.0	9.4	.0
	22+	.0	.0	1.1	.8	.0	.0	.0	.0	.0	.0	1.9	.0
	TOT %	.9	1.6	9.3	9.2	4.2	3.3	1.6	1.1	.0	2.4	33.6	.0
TOT OBS													
TOT PCT													
		3.4	7.8	26.8	30.8	12.2	8.6	2.5	2.5	.0	5.4	100.0	721

MAY

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1887-1969AREA 0021 BROOME  
16.55 121.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	1.9	3.8	.0	.0	.0	.0	.0	5.7	94.3	53
06009	.0	.0	2.1	2.1	.0	.0	.0	.0	.0	.0	4.2	95.8	48
12015	.0	.0	.0	.0	3.6	1.6	.0	.0	.0	3.6	8.9	91.1	56
18021	.0	.0	.0	.0	1.8	7.3	.0	1.8	.0	1.8	12.7	87.3	55
TOT	0	0	1	2	5	5	0	1	0	3	17	195	212
PCT	.0	.0	.5	.9	2.4	2.4	.0	.5	.0	1.4	8.0	92.0	100.0

TABLE 11

PERCENT FREQUENCY VSRY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL OBS
00003	.0	.0	3.5	.4	70.2	25.9	255
06009	.0	.0	3.6	.0	56.1	40.3	139
12015	.0	.0	1.3	.9	67.4	30.4	227
18021	.0	.0	.7	.7	59.2	39.5	152
TOT	0	0	18	4	500	251	773
PCT	.0	.0	2.3	.5	64.7	32.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND+5	NH <5/8 AND+5	TOTAL OBS
00003	.0	.0	2.0	3.9	94.1	51
06009	.0	2.1	4.3	.0	95.7	47
12015	.0	.0	.0	7.5	92.5	53
18021	.0	.0	1.9	13.2	84.9	53
TOT	0	1	4	13	187	204
PCT	.0	.5	2.0	6.4	91.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.2	.0	.0	.0	.0	1	.2
85/89	.0	.2	1.2	2.8	2.7	.6	.4	.0	39	7.6
80/84	.0	.5	3.7	7.5	19.6	16.7	9.4	2.2	304	59.6
75/79	.0	.4	3.1	7.6	6.7	6.1	2.4	1.8	143	28.0
70/74	.0	.0	.8	1.2	1.2	.4	.2	.4	21	4.1
65/69	.0	.0	.0	.2	.0	.2	.0	.0	2	.4
TOTAL	0	6	45	98	154	122	63	22	510	100.0
PCT	.0	1.2	8.8	19.2	30.2	23.9	12.4	4.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90	.0	.0	.0	.0	.1	.0	.0	.0	.0	.0
85	.1	.9	2.4	1.7	.4	.6	.3	.3	.0	1.0
80	2.3	6.8	15.1	15.6	6.4	7.3	1.2	1.7	.0	3.1
75	.8	1.5	7.5	11.5	2.9	1.0	.3	.5	.0	2.2
70	.4	.0	.9	2.5	.1	.0	.0	.1	.0	.0
65	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0
TOTAL	3.6	9.2	25.9	31.8	10.0	8.9	1.8	2.5	.0	6.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	86	85	81	73	70	68	80.0	248
06009	90	89	88	82	76	71	69	81.8	130
12015	87	86	85	80	75	74	73	80.3	219
18021	84	83	83	79	72	69	68	78.7	141
TOT	90	87	85	80	74	70	68	80.2	738

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	30.9	31.5	20.4	13.3	3.9	.56	181
06009	.0	32.7	30.6	23.5	11.2	2.0	.56	98
12015	.0	26.3	27.6	27.6	14.1	4.5	.58	156
18021	.0	25.0	27.9	27.9	10.6	8.7	.59	104
TOT	0	155	159	132	68	25	57	539



PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1887-1969

MAY

TABLE 17

AREA 0021 BROOME  
10.55 121.5E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
9/10	.0	.0	.0	.0	.0	.2	.0	1	.0	.2
7/8	.0	.0	.0	.0	.6	.2	.0	4	.0	.8
6	.0	.0	.0	.8	.8	.0	.4	10	.0	2.1
5	.0	.0	.2	.4	.4	.2	.2	7	.2	1.3
4	.0	.0	.4	2.3	1.0	.8	.4	24	.0	5.0
3	.0	.0	.2	1.7	1.3	.8	.0	19	.2	3.8
2	.0	.0	1.9	1.3	2.7	1.5	.0	35	.8	6.5
1	.0	.2	.2	1.3	6.5	2.5	.0	51	1.3	9.4
0	.0	.6	.4	5.0	9.6	2.1	.0	85	1.9	15.9
-1	.0	.6	.0	3.1	6.3	.8	.0	55	.4	11.1
-2	.0	.2	1.3	4.0	8.1	.2	.0	68	.4	13.4
-3	.0	.0	1.0	4.8	2.5	.0	.0	40	.0	8.4
-4	.0	.0	1.5	4.6	2.1	.0	.0	39	.2	7.9
-5	.0	.0	1.0	1.5	.0	.0	.0	12	.0	2.5
-6	.2	.2	2.1	.6	.0	.0	.0	15	.0	3.1
-7/-8	.0	.2	.2	1.3	.0	.0	.0	8	.0	1.7
-9/-10	.0	.6	.6	.2	.0	.0	.0	7	.0	1.5
-11/-13	.0	.2	.0	.0	.0	.0	.0	1	.0	.2
TOTAL	1		56	201	5			479	26	453
PCT	.2	2.9	11.7	32.8	42.0	9.4	1.0	100.0	5.4	94.6

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.9
1-2	.0	1.5	.0	.0	.0	.0	1.5	.0	1.3	.0	.0	.0	.0	1.3
3-4	.0	.8	.0	.0	.0	.0	.8	.0	.4	.0	.0	.0	.0	.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.1	.0	.0	.0	.0	2.1	.0	2.6	.9	.0	.0	.0	3.4

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.9	.0	.0	.0	.0	1.7	.0	4.3	.0	.0	.0	.0	4.3
1-2	.9	4.5	1.7	.0	.0	.0	7.1	.0	10.7	.9	.0	.0	.0	11.5
3-4	.0	2.4	3.2	1.5	.0	.0	7.1	.0	2.6	2.8	.2	.0	.0	5.6
5-6	.0	.0	9.2	.0	.0	.0	9.2	.0	.0	4.7	1.7	.0	.0	6.4
7	.0	.0	3.0	2.6	.0	.0	5.6	.0	.0	1.3	.9	.0	.0	2.1
8-9	.0	.0	.0	.6	.0	.0	.6	.0	.0	2.6	1.1	.0	.0	3.6
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	7.7	17.1	4.7	.0	.0	31.2	.0	17.3	12.2	3.8	.0	.0	33.5

PERIOD: (OVER-ALL) 1963-1969

MAY

AREA 0021 BROOME  
16.55 121.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.6	1.5	.0	.0	.0	.0	2.1	1.3	1.1	.0	.0	.0	.0	2.4
1-2	.6	.9	.0	.0	.0	.0	1.5	.2	1.9	.9	.0	.0	.0	3.0
3-4	.0	2.4	2.6	.0	.0	.0	4.9	.0	1.2	.2	.0	.0	.0	1.4
5-6	.0	.0	.6	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.9	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	4.7	4.1	.0	.0	.0	10.0	1.5	3.2	1.1	.0	.0	.0	5.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.5	1.7	.0	.0	.0	.0	2.4	.0	1.7	.0	.0	.0	.0	1.7	
1-2	.0	.6	.0	.0	.0	.0	.6	.0	.9	.0	.0	.0	.0	.9	
3-4	.0	.9	.6	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.6	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.6	3.2	.6	.0	.0	.0	4.5	.0	2.6	.0	.0	.0	.0	2.6	93.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.3	12.0	.0	.0	.0	.0	22.2	
1-2	1.7	22.2	3.4	.0	.0	.0	27.4	
3-4	.0	9.4	9.4	1.7	.0	.0	20.5	
5-6	.0	.0	14.5	1.7	.0	.0	16.2	
7	.0	.0	6.0	3.4	.0	.0	9.4	
8-9	.0	.0	2.6	1.7	.0	.0	4.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.0	43.6	35.9	8.5	.0	.0	100.0	117

PERIOD: (OVER-ALL) 1965-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	8.5	19.5	10.2	11.9	3.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	63	3
6-7	.0	2.5	9.3	5.1	3.4	.8	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25	4
8-9	.0	.0	.8	.0	5.1	.0	.8	.0	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	9
10-11	.0	.0	1.7	4.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	4
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
INDFT	8.5	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11	1
TOTAL	20	26	26	25	15	1	1	1	3	0	0	0	0	0	0	0	0	0	0	118	4
PCT	16.9	22.0	22.0	21.2	12.7	.8	.8	.8	2.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1900-1969

JUNE

AREA 0021 BROOME  
16.75 121.2E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8	.0	.0	.0	94.2	
NE	5.2	1.0	.0	.0	.0	.0	.0	7.2	.0	.0	5.1	.0	.0	.0	87.7	
E	.7	1.0	.7	.0	.0	.0	.0	2.3	.0	.0	2.0	.0	.0	.0	95.8	
SE	2.1	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.3	.0	.5	.0	97.1	
S	3.2	.0	.0	.0	.0	.0	.0	3.2	.0	.0	.0	.0	1.6	.0	95.2	
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.8	.0	.0	.0	88.2	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20.4	.0	.0	.0	79.6	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.9	.0	.0	.0	93.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
TOT PCT	1.8	.4	.2	.0	.0	.0	.0	2.3	.0	.0	2.7	.0	.4	.0	94.6	
TOT OBS:	554															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT QB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG SNOW	DUST DUST DUST WEA	NIG SIG WEA
00003	1.4	1.0	.0	.0	.0	.0	.0	2.4	.0	.0	3.4	.0	.5	.0		93.7
06009	.9	.0	.0	.0	.0	.0	.0	.9	.0	.0	2.6	.0	.9	.0		95.7
12015	1.2	.0	.6	.0	.0	.0	.0	1.7	.0	.0	1.7	.0	.6	.0		95.9
18021	4.9	.0	.0	.0	.0	.0	.0	4.9	.0	.0	1.9	.0	.0	.0		93.2
TOT PCT TOT OBS:	1.8 598	.3	.2	.0	.0	.0	.0	2.3	.0	.0	2.5	.0	.5	.0		94.6

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.3	2.1	.9	.0	.0	.0		3.2	8.6		.7	2.4	2.7	5.0	5.5	4.2	6.9	.0
NE	.4	5.0	3.1	.2	.0	.0		8.6	9.9		5.7	7.9	16.2	11.0	12.5	6.7	12.5	.8
E	.8	12.5	12.1	1.9	.3	.0		27.6	11.9		36.8	29.9	33.8	21.3	23.0	17.5	29.2	28.7
SE	2.3	15.5	13.5	3.2	.3	.0		34.8	11.6		40.7	38.4	26.4	28.7	30.9	40.0	29.2	37.1
S	1.6	6.1	3.1	.2	.0	.0		11.0	8.8		9.3	11.9	7.4	12.7	7.8	13.3	13.2	14.5
SW	1.6	5.0	.9	.0	.0	.0		7.5	6.5		1.4	7.0	3.4	16.0	9.3	7.5	2.8	11.3
W	.7	1.1	.4	.0	.0	.0		2.2	5.3		1.4	1.2	2.0	2.0	2.0	5.0	.0	4.0
NW	.1	.9	.3	.0	.0	.0		1.3	7.8		.5	.0	2.7	.7	1.0	4.2	.7	2.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.7							3.7	.0		3.6	1.2	5.4	2.7	7.8	1.7	5.6	1.5
TOT OBS	55	271	194	31	3	0	564		10.1		110	82	37	75	102	60	36	62
TOT PCT	11.5	48.0	34.4	5.5	.5	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	1.2	1.9	.1	.0	.0			3.2	8.6		1.4	4.2	5.1	2.6
NE	2.5	5.3	.8	.0	.0			8.6	9.9		6.6	12.7	10.3	5.1
E	7.1	13.1	6.9	.4	.0			27.6	11.9		33.9	25.4	21.0	28.6
SE	10.9	15.5	6.7	1.8	.0			34.8	11.6		39.7	27.9	34.3	34.2
S	4.1	6.0	.8	.1	.0			11.0	8.8		10.4	10.9	9.9	14.0
SW	4.4	3.1	.1	.0	.0			7.5	6.5		3.8	11.8	8.6	8.2
W	1.7	.5	.0	.0	.0			2.2	5.3		1.3	2.0	3.1	2.6
NW	.6	.7	.0	.0	.0			1.3	7.8		.3	1.3	2.2	1.8
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	3.7							3.7	.0		2.6	3.6	5.6	3.1
TOT OBS	205	259	87	13	0	564			10.1		192	112	162	98
TOT PCT	36.3	45.9	15.4	2.3	.0			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1900-1969

JUNE

AREA 0021 BROOME  
16.75 121.2E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						48+	MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47					
0000	2.6	6.3	44.8	37.0	8.3	1.0	.0	11.3	100.0	192	
0600	3.6	5.4	52.7	35.7	2.7	.0	.0	9.9	100.0	112	
1200	5.6	11.7	49.4	30.2	3.1	.0	.0	8.6	100.0	162	
1800	3.1	7.1	46.9	34.7	7.1	1.0	.0	10.0	100.0	98	
TOT	21	44	271	194	31	3	0	10.1	100.0	564	
PCT	3.7	7.8	48.0	34.4	5.5	.5	.0		100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL CLOUD OBS	MEAN CLOUD COVER
N	2.7	.5	2.3	.0		2.6
NE	8.1	2.3	3.4	1.4		3.0
E	20.1	4.1	5.0	.7		2.0
SE	13.7	2.3	5.0	4.7		3.2
S	5.6	.7	.5	3.2		3.4
SW	2.3	.7	.2	.0		1.6
W	.5	.0	.7	.0		4.8
NW	.9	.0	.0	.0		.8
VAR	.0	.0	.0	.0		.0
CALM	7.9	.0	.0	.0		.6
TOT OBS	86	15	24	14	139	2.5
TOT PCT	61.9	10.8	17.3	10.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.5	1.3	.0	.0	.0	.0	3.8	
NE	.0	.0	.0	.0	1.6	.2	.0	.0	.0	.0	13.5	
E	.0	.0	.0	.0	.7	1.4	.0	.0	.0	.0	27.9	
SE	.0	.0	.7	.7	2.9	.2	.9	.7	.7	1.4	17.4	
S	.0	.0	.0	.0	.0	2.5	.5	.0	.0	.0	6.3	
SW	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	3.1	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.9	
TOT OBS	0	0	1	2	8	8	2	1	1	2	114	139
TOT PCT	.0	.0	.7	1.4	5.8	5.8	1.4	.7	.7	1.4	82.0	100.0

TABLE 7

CUMULATIVE PCT FRQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)			VSBY (NM)			VSBY (NM)		
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0	>0
>6500	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>5000	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9	2.9
>3500	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
>2000	9.4	10.1	10.1	10.1	10.1	10.1	10.1	10.1	10.1
>1000	12.9	14.4	14.4	15.8	15.8	15.8	15.8	15.8	15.8
>600	13.7	15.8	15.8	17.3	17.3	17.3	17.3	17.3	17.3
>300	14.4	16.5	16.5	18.0	18.0	18.0	18.0	18.0	18.0
>150	14.4	16.5	16.5	18.0	18.0	18.0	18.0	18.0	18.0
>0	14.4	16.5	16.5	18.0	18.0	18.0	18.0	18.0	18.0
TOTAL	20	23	23	25	25	25	25	25	25

TOTAL NUMBER OF OBS: 139

PCT FREQ NH <5/8: 82.0

TABLE 7A

PERCENTAGE FRQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
41.8	15.6	14.2	5.0	5.0	2.8	5.0	2.8	7.8	.0	141

JUNE

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1900-1969

TABLE B

AREA 0021 BROOME  
16.75 121.2EPERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL DBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
	TOT %	.0	.0	.0	.5	.2	.0	.0	.0	.0	.0	.7	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.3	*	.0	.0	.0	.0	.0	.0	.4	
	TOT %	.0	.0	.3	*	.0	.0	.0	.0	.0	.0	.4	
5<10	PCP	.0	.6	.6	.4	.4	.0	.0	.0	.0	.0	2.0	
	NO PCP	1.4	3.8	15.8	22.4	7.0	6.2	1.4	.7	.0	1.6	60.5	
	TOT %	1.4	4.4	16.4	22.7	7.4	6.2	1.4	.7	.0	1.6	62.5	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	1.7	4.4	10.9	11.0	3.6	1.4	.8	.6	.0	2.2	36.5	
	TOT %	1.7	4.4	10.9	11.0	3.6	1.4	.8	.6	.0	2.2	36.5	
TOT DBS													
TOT PCT													
		3.1	8.8	27.6	34.3	11.2	7.7	2.2	1.3	.0	3.8	100.0	554

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL DBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.4	.2	.0	.0	.0	.0	.0	.5	
	11-21	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	TOT %	.0	.0	.0	.7	.2	.0	.0	.0	.0	.0	.9	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.3	*	.0	.0	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.3	*	.0	.0	.0	.0	.0	.0	.4	
5<10	0-3	.3	.4	.3	2.0	.7	1.4	.5	.1	.0	1.6	7.3	
	4-10	.7	2.2	7.9	9.7	4.6	4.1	.9	.4	.0		30.6	
	11-21	.4	1.5	6.8	8.3	1.8	.6	.0	.2	.0		19.6	
	22+	.0	.2	1.5	3.3	.2	.0	.0	.0	.0		5.2	
	TOT %	1.4	4.4	16.5	23.2	7.3	6.1	1.4	.7	.0	1.6	62.6	
10+	0-3	.0	.0	.5	.4	.8	.2	.2	.0	.0	2.1	4.3	
	4-10	1.4	2.8	4.3	5.3	1.3	.9	.2	.4	.0		16.5	
	11-21	.3	1.6	5.4	5.1	1.4	.3	.4	.1	.0		14.6	
	22+	.0	.0	.7	*	.0	.0	.0	.0	.0		.7	
	TOT %	1.6	4.3	10.9	10.8	3.6	1.4	.8	.6	.0	2.1	36.1	
TOT DBS													
TOT PCT													
		3.1	8.7	27.7	34.8	11.0	7.6	2.2	1.3	.0	3.7	100.0	562



JUNE

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1900-1969AREA 0021 BROOME  
10.75 121.2E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	400 999	1000 1999	2000 3499	3500 4999	5000 6499	5500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	2.8	.0	2.8	8.3	2.8	.0	.0	.0	16.7	83.3	36
06009	.0	.0	.0	2.7	5.4	8.1	.0	2.7	2.7	2.7	24.3	75.7	37
12015	.0	.0	.0	.0	9.4	.0	.0	.0	.0	.0	9.4	90.6	32
18021	.0	.0	.0	2.9	5.7	5.7	2.9	.0	.0	2.9	20.0	80.0	35
TOT	0	0	1	2	8	8	2	1	1	2	25	115	140
PCT	.0	.0	.7	1.4	5.7	5.7	1.4	.7	.7	1.4	17.9	82.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.9	.0	64.2	34.9	212
06009	.0	.0	.9	.0	58.6	40.5	116
12015	.0	.0	1.2	1.2	69.4	28.3	173
18021	.0	.0	1.0	.0	59.0	40.0	105
TOT	0	0	6	2	386	212	606
PCT	.0	.0	1.0	.3	63.7	35.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	2.8	2.8	13.9	83.3	36
06009	.0	.0	2.7	21.6	75.7	37
12015	.0	.0	3.2	6.5	90.3	31
18021	.0	.0	5.7	14.3	80.0	35
TOT	0	1	5	20	114	139
PCT	.0	.7	3.6	14.4	82.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.2	.4	.0	.0	3	.7
80/84	.0	.2	1.3	5.0	5.4	4.8	2.2	.4	89	19.4
75/79	.0	1.1	5.4	13.7	11.8	14.2	5.2	1.3	242	52.7
70/74	.0	.2	2.6	4.4	5.7	3.7	2.2	2.2	96	20.9
65/69	.0	.0	1.1	.9	2.4	1.1	.7	.0	28	6.1
60/64	.0	.0	.0	.0	.0	.2	.0	.0	1	.2
TOTAL	0	7	48	110	117	112	47	18	459	100.0
PCT	.0	1.5	10.5	24.0	25.5	24.4	10.2	3.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.4	.2	.0	.0	.0	.0	.0	.0	.0
1.4	2.8	6.8	4.3	1.6	.5	.2	.4	.0	1.3
1.9	4.0	13.2	18.2	7.4	4.4	1.6	.7	.0	1.3
.2	1.1	6.0	7.7	2.2	2.3	.6	.3	.0	.4
.0	.1	2.0	3.5	.5	.0	.0	.0	.0	.0
.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
3.5	8.5	28.3	33.9	11.7	7.2	2.5	1.5	.0	3.1

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	88	82	76	68	65	64	76.3	202
06009	91	86	84	79	72	66	66	78.5	113
12015	86	84	82	77	71	67	67	77.0	169
18021	82	81	80	76	69	65	65	75.6	104
TOT	91	86	83	77	69	66	64	76.8	588

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	35.7	28.1	26.3	7.6	2.3	55	171
06009	.0	34.7	29.5	27.4	5.3	3.2	54	95
12015	.0	40.0	20.7	20.0	15.0	4.3	56	140
18021	.0	29.1	24.4	29.1	11.6	5.8	58	86
TOT	0	175	126	124	49	18	56	492

JUNE

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1900-1969

TABLE 17

AREA 0021 BROOME  
16.75 121.2EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	NO FOG
14/16	.0	.0	.0	.0	.3	.0	1	.0	.3
9/10	.0	.0	.0	.3	.0	.0	1	.0	.3
6	.0	.0	.3	.0	.0	.6	3	.0	.8
5	.0	.0	.6	1.1	.0	.3	9	.0	2.5
4	.0	.3	.3	1.7	.8	.6	13	.0	3.7
3	.0	.3	.6	2.0	1.1	.0	14	.0	4.0
2	.0	.0	1.7	2.3	1.7	.0	20	.3	5.4
1	.0	.3	4.0	5.9	3.7	.0	49	1.1	12.7
0	.0	.8	2.3	9.0	1.4	.3	49	.3	13.6
-1	.3	1.1	5.9	4.8	.8	.0	46	2.0	11.0
-2	.0	.3	4.8	5.1	1.1	.6	42	.6	11.3
-3	.0	1.7	4.2	5.6	2.0	.0	48	.0	13.6
-4	.3	.6	3.7	2.3	.3	.0	26	.0	7.3
-5	.3	.6	1.7	.0	.3	.0	10	.0	2.8
-6	.0	.6	1.1	.3	.0	.0	7	.0	2.0
-7/-8	.8	1.1	.6	.8	.0	.0	12	.0	3.4
-9/-10	.6	.0	.3	.0	.0	.0	3	.0	.8
-11/-13	.0	.0	.3	.0	.0	.0	1	.0	.3
TOTAL	8		114		50		354	15	339
PCT	2.3	7.9	32.2	41.2	14.1	2.3	100.0	4.2	95.8

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.1	.0	.0	.0	.0	1.1	.0	1.1	.0	.0	.0	.0	1.1
1-2	.0	2.2	.0	.0	.0	.0	2.2	.0	4.5	.0	.0	.0	.0	4.5
3-4	.0	.8	2.5	.0	.0	.0	3.4	.0	3.7	5.1	.0	.0	.0	8.7
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0	1.1
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	4.2	2.5	.0	.0	.0	6.7	.0	9.3	6.2	.0	.0	.0	15.4

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.1	.0	.0	.0	.0	.0	1.1	.0	1.4	.0	.0	.0	.0	1.4
1-2	.0	4.5	2.2	.0	.0	.0	6.7	.0	5.9	.6	.0	.0	.0	6.5
3-4	.0	6.7	9.3	.0	.0	.0	16.0	.0	2.5	7.6	.0	.0	.0	10.1
5-6	.0	1.1	2.2	1.1	.0	.0	4.5	.0	.0	4.8	.0	.0	.0	4.8
7	.0	.0	.8	.0	.0	.0	.8	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	1.1	.0	1.1	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	12.4	14.6	1.1	1.1	.0	30.3	.0	9.8	13.2	.0	.0	.0	23.0

AREA 0021 BROOME  
16.75 121.2E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

NW															NW															TOTAL	
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	PCT	PCT															
<1	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	1.1																
1-2	.0	.0	2.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0																
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3																
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0																
TOT PCT	.0	.0	2.0	.0	.0	.0	2.0	.0	1.1	.3	.0	.0	.0	1.4	94.																

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	10.1	9.0	.0	.0	.0	.0	19.1	
1-2	.0	19.1	7.9	.0	.0	.0	27.0	
3-4	.0	14.6	25.8	.0	.0	.0	40.4	
5-6	.0	1.1	9.0	1.1	.0	.0	11.2	
7	.0	.0	1.1	.0	.0	.0	1.1	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	1.1	.0	1.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	10.1	43.8	43.8	1.1	1.1	.0	100.0	89

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

[illegible]

JULY

PERIOD: (PRIMARY) 1923-1949  
(OVER-ALL) 1883-1949AREA 0071 BROOME  
16.85 121.2E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.9	.0	91.1	
NE	.0	.0	1.7	.0	.0	.0	.0	1.7	.0	3.4	3.4	.0	5.2	.0	86.2	
E	1.5	.0	.3	.0	.0	.0	.0	1.8	.0	1.3	1.3	.0	.3	.0	95.3	
SE	1.1	.5	.5	.0	.0	.0	.0	2.0	.0	1.0	1.9	.0	2.2	.0	92.9	
S	.6	.0	.0	.0	.0	.0	.0	.6	.0	1.3	1.3	.0	.6	.0	96.3	
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.2	2.1	.0	3.1	.0	89.5	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9	3.9	.0	7.8	.0	84.3	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.5	6.3	.0	5.3	.0	75.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	4.5	.0	.0	.0	.0	4.5	.0	4.5	.0	.0	9.1	.0	81.8	
TOT PCT	.9	.2	.5	.0	.0	.0	.0	1.6	.0	1.9	1.7	.0	2.3	.0	92.5	
TOT OBS:	572															

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00603	.0	.0	1.1	.0	.0	.0	.0	1.1	.0	.0	4.2	.0	2.6	.0	92.1
06609	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	.0	3.5	.0	93.8
12615	2.7	.0	.5	.0	.0	.0	.0	3.3	.0	3.3	2.7	.0	2.7	.0	88.0
18621	.8	.8	.0	.0	.0	.0	.0	1.7	.0	5.0	.8	.0	3.4	.0	89.1
TOT PCT	1.0	.2	.5	.0	.0	.0	.0	1.7	.0	2.0	2.8	.0	3.0	.0	90.6
TOT OBS:	504														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						48+	TOTAL OBS	PCT FRQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	00					03	06	09	12	15	18	21	
N	.4	1.5	.0	.0	.0	.0		1.9	5.2		.0	1.7	2.4	4.3	3.4	.7	1.5	.8
NE	1.0	3.6	.7	.0	.0	.0		5.2	7.2		5.1	7.7	5.4	4.3	5.0	6.0	3.4	3.9
E	1.1	13.8	9.2	1.8	.3	.0		26.8	11.6		31.9	29.5	36.3	22.5	24.6	22.0	26.5	21.9
SE	1.2	17.1	14.5	3.2	.0	.0		36.0	12.0		42.1	37.5	39.9	31.9	30.5	31.0	38.7	38.7
S	1.0	9.7	2.7	.7	.0	.0		14.1	9.1		13.4	12.8	6.5	12.3	12.0	18.7	19.6	18.4
SW	1.3	5.6	1.0	.8	.0	.0		8.7	8.2		3.7	4.0	7.1	13.0	12.6	14.2	4.4	10.2
W	.7	1.5	.1	.0	.0	.0		2.3	4.8		2.3	1.7	.0	5.5	3.2	.7	.0	2.3
NW	.4	.8	.1	.0	.0	.0		1.3	5.3		.5	.6	.0	3.6	1.3	.7	.0	3.9
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.8							3.8	.0		.9	4.5	2.4	1.4	7.6	6.0	5.9	.0
TOT OBS	66	325	175	40	2	0	608		10.1		108	88	42	69	119	67	51	64
TOT PCT	10.9	53.5	29.8	6.6	.3	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	1.5	.3	.0	.0	.0			1.9	5.2		.8	3.6	2.4	1.1
NE	2.6	2.4	.2	.0	.0			5.2	7.2		6.3	4.7	5.4	3.7
E	6.6	14.0	4.6	1.3	.0			26.8	11.6		30.9	27.7	23.7	23.9
SE	8.5	17.8	8.7	.9	.0			36.0	12.0		40.1	34.9	30.6	38.7
S	5.0	7.6	1.4	.1	.0			14.1	9.1		13.1	10.1	14.4	18.9
SW	4.7	3.1	.8	.0	.0			8.7	8.2		3.8	10.8	13.2	7.6
W	1.9	.4	.0	.0	.0			2.3	4.8		2.0	4.1	2.3	1.3
NW	1.0	.3	.0	.0	.0			1.3	5.3		.5	2.3	1.1	2.2
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	3.8							3.8	.0		2.6	1.8	7.0	2.6
TOT OBS	217	280	97	14	0	608			10.1		196	111	186	115
TOT PCT	35.7	46.1	16.0	2.3	.0			100.0			100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1967-1969  
(OVER-ALL) 1883-1969

JULY

AREA 0091 BROOME  
16.85 121.2E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47				
00003	2.6	5.6	46.9	36.2	8.2	.5	.0	11.3	100.0	196
06009	1.8	8.1	55.9	28.8	5.4	.0	.0	10.1	100.0	111
12115	7.0	7.5	61.8	19.4	4.3	.0	.0	8.1	100.0	186
18007	2.6	7.8	48.7	31.3	8.7	.9	.0	10.9	100.0	115
TOT	23	43	325	175	40	2	0	10.1		608
PCT	3.8	7.1	53.5	28.8	6.6	.3	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL CLOUD OBS	MEAN COVER
N	.5	.4	.0	.0		1.8
NE	4.2	.1	.0	.0		.6
E	26.4	1.6	1.1	.0		.6
SE	33.6	2.2	2.9	.5		1.0
S	13.6	1.4	1.5	.0		1.2
SW	3.4	.3	.0	.0		1.0
W	.4	.0	.0	.0		.0
NW	.0	.0	.0	.0		.0
VAP	.0	.0	.0	.0		.0
CALM	5.4	.0	.5	.0		.7
TOT OBS	161	11	11	1	184	.9
TOT PCT	87.5	6.0	6.0	.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.3
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	29.1
.0	.0	.0	.0	1.1	.0	.5	.0	.0	.0	.0	37.5
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.4
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	5.4
.0	.0	.0	.0	.0	2	0	2	0	0	.0	18.0
.0	.0	.0	.0	1.1	.0	1.1	.0	.0	.0	.0	97.8
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)				VSBY (NM)			
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.0	.0	.0	.0	.0	.0	.0	.0
>4000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>3000	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>2500	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>2000	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>1500	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>1000	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>500	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>150	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
>0	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
TOTAL	4	4	4	4	4	4	4	4

TOTAL NUMBER OF OBS: 184

PCT FREQ NH <5/8: 97.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
65.6	21.7	3.7	4.2	1.6	.0	2.1	.5	.5	.0	189



PERIOD: (PRIMARY) 1923-1949  
(OVER-ALL) 1883-1949

JULY

AREA 0021 BROOME  
16.85 171.2E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.2
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.2	.3	.1	.8	.3	.8	.3	.3	.0	.3	3.3	3.3
	TOT %	.2	.3	.1	.8	.3	.8	.3	.3	.0	.3	3.3	3.3
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5<10	PCP	.0	.1	.5	.7	.1	.0	.0	.0	.0	.0	1.4	1.4
	NO PCP	1.4	2.6	12.9	17.7	5.5	4.7	1.5	1.0	.0	1.4	48.8	48.8
	TOT %	1.4	2.7	13.4	18.5	5.6	4.7	1.5	1.0	.0	1.4	50.2	50.2
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	.2
	NO PCP	.4	2.1	13.2	17.1	8.0	2.8	.5	.2	.0	1.9	46.2	46.2
	TOT %	.4	2.1	13.2	17.1	8.0	2.8	.5	.2	.0	2.1	46.3	46.3
TOT OBS													572
TOT PCT													
		2.0	5.1	26.7	36.4	14.0	8.3	2.2	1.4	.0	3.8	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.0	.1	.1	.0	.0	.0	.0	.2	.2
1<2	0-3	.0	.0	.0	.0	.0	.1	.2	.3	.0	.3	.9	.9
	4-10	.2	.3	.2	.2	.0	.3	.1	.0	.0	.0	1.2	1.2
	11-21	.0	.0	.0	.5	.0	.0	.0	.0	.0	.0	.5	.5
	22+	.0	.0	.0	.1	.3	.4	.0	.0	.0	.0	.9	.9
	TOT %	.2	.3	.2	.8	.3	.8	.3	.3	.0	.3	3.4	3.4
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.2
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.2
5<10	0-3	.2	.7	.3	.7	.2	1.1	.6	.0	.0	1.4	5.1	5.1
	4-10	1.2	1.8	7.4	7.8	3.8	3.1	.8	.9	.0		26.7	26.7
	11-21	.0	.2	5.3	7.6	1.5	.3	.1	.1	.0		15.2	15.2
	22+	.0	.0	1.2	2.4	.2	.2	.0	.0	.0		3.9	3.9
	TOT %	1.4	2.6	14.3	18.6	5.6	4.6	1.5	.9	.0	1.4	50.9	50.9
10+	0-3	.2	.3	.8	.5	.5	.0	.0	.2	.0	2.1	4.6	4.6
	4-10	.2	1.5	6.4	8.7	5.9	1.9	.5	.0	.0		25.0	25.0
	11-21	.0	.3	4.8	6.6	1.2	.8	.0	.0	.0		13.7	13.7
	22+	.0	.0	.9	.9	.2	.0	.0	.0	.0		2.1	2.1
	TOT %	.4	2.1	12.9	16.8	7.8	2.7	.5	.2	.0	2.1	45.3	45.3
TOT OBS													585
TOT PCT													
		1.9	5.0	27.5	36.1	13.6	8.3	2.2	1.4	.0	3.8	100.0	

JULY

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1883-1969AREA 0021 BROOME  
16.85 121.2E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.0	.0	.0	.0	.0	2.3	.0	.0	.0	2.3	97.7	44
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	42
12015	.0	.0	.0	.0	2.0	.0	.0	.0	.0	.0	2.0	98.0	49
18021	.0	.0	.0	.0	1.9	.0	1.9	.0	.0	.0	3.8	96.2	52
TOT	0	0	0	0	2	0	2	0	0	0	4	183	187
PCT	.0	.0	.0	.0	1.1	.0	1.1	.0	.0	.0	2.1	97.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
(GMT)							
00003	.5	.0	3.1	.0	58.7	37.8	196
06009	.0	.0	4.3	.9	40.9	53.9	115
12015	.0	.0	4.3	.0	57.0	38.7	186
18021	.0	.8	5.0	.0	42.5	51.7	120
TOT	1	1	25	1	319	270	617
PCT	.2	.2	4.1	.2	51.7	43.8	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HR	<150 <500D	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
(GMT)						
00003	.0	.0	.0	2.3	97.7	43
06009	.0	.0	.0	.0	100.0	42
12015	.0	.0	.0	2.1	97.9	48
18021	.0	.0	.0	3.9	96.1	51
TOT	0	0	0	4	180	184
PCT	.0	.0	.0	2.2	97.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
80/84	.0	.2	.8	1.2	1.2	1.2	.4	.0	25	5.2
75/79	.0	.4	5.0	11.8	11.0	9.7	4.6	.8	209	43.3
70/74	.0	.2	4.1	12.2	12.6	7.7	5.4	1.7	212	43.9
65/69	.0	.2	.8	1.7	2.3	1.9	.4	.2	36	7.5
60/64	.0	.0	.0	.2	.0	.0	.0	.0	1	.2
TOTAL	0	5	52	131	131	99	52	13	483	100.0
PCT	.0	1.0	10.8	27.1	27.1	20.5	10.8	2.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.2	.3	1.1	2.4	.6	.4	.2	.0	.0	.0
.7	2.9	11.7	13.9	7.8	3.5	.6	.0	.0	1.4
1.0	2.2	12.4	17.2	4.3	2.8	1.4	.6	.0	1.9
.0	.0	2.9	3.3	.4	.1	.2	.3	.0	.2
.0	.0	.0	.1	.1	.0	.0	.0	.0	.0
1.9	5.3	28.2	37.0	13.2	6.8	2.5	1.6	.0	3.5

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
(GMT)									
00003	90	83	80	74	67	63	63	73.9	200
06009	83	82	81	76	70	65	65	75.8	113
12015	81	80	79	75	69	67	66	74.3	192
18021	81	80	79	74	67	65	60	73.3	120
TOT	90	82	80	75	68	65	60	74.3	625

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
(GMT)										
00003	.0	39.4	30.6	18.8	10.0	1.3	.6	.0	54	160
06009	.0	52.7	20.4	18.3	7.5	1.1	.5	.0	51	93
12015	.0	30.6	27.5	23.8	12.5	5.6	.6	.0	57	160
18021	.0	34.7	26.7	21.8	10.9	5.9	.6	.0	56	101
TOT	0	196	139	107	54	18	.5	.0	514	

JULY

PERIOD: (PRIMARY) 1923-1969  
(OVER-ALL) 1883-1969

TABLE 17

AREA 0021 BROOME  
16.85 121.2EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	TOT	W FOG	WU FOG
9/10	.0	.0	.0	.3	.0	1	.0	.3
7/8	.0	.0	.5	.3	.0	3	.0	.8
6	.0	.0	.3	.8	.0	4	.0	1.1
5	.0	.0	.5	.0	.0	2	.0	.5
4	.0	.5	.5	1.3	.5	11	.0	3.0
3	.0	.8	1.3	.0	.3	9	.0	2.4
2	.0	1.1	1.9	1.3	1.3	21	.5	5.1
1	.0	3.5	4.3	4.0	.3	45	.8	11.3
0	.0	2.2	7.3	3.0	.5	48	1.6	11.3
-1	.3	3.0	5.4	4.9	.0	50	.8	12.7
-2	.5	2.2	6.4	4.0	.5	58	.3	15.4
-3	.3	3.5	6.2	2.4	.0	46	.3	12.1
-4	.5	2.7	4.9	1.9	.0	37	.0	10.0
-5	.3	1.9	1.1	.0	.0	12	.0	3.2
-6	.8	1.3	.8	.0	.0	11	.0	3.0
-7/-8	1.6	1.1	.3	.0	.0	11	.0	3.0
-9/-10	.0	.3	.0	.0	.0	1	.0	.3
-11/-13	.3	.0	.0	.0	.0	1	.0	.3
TOTAL	17	89	162	90	13	371	16	355
PCT	4.6	24.0	43.7	24.3	3.5	100.0	4.3	95.7

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.8	.8	.0	.0	.0	.0	1.6
1-2	.0	.0	.0	.0	.0	.0	.0	.0	1.8	.8	.0	.0	.0	2.6
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.8	.2	.0	.0	.0	1.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.8	3.8	1.2	.0	.0	.0	5.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.8	.0	.0	.0	.0	.8	.0	2.4	.0	.0	.0	.0	2.4
1-2	.0	6.2	3.2	.0	.0	.0	9.4	.8	10.2	4.0	.0	.0	.0	15.0
3-4	.0	.0	7.0	.0	.0	.0	11.0	.0	5.6	4.8	.0	.0	.0	10.4
5-6	.0	.8	4.4	.0	.0	.0	5.0	.0	1.6	5.4	.0	.0	.0	7.0
7	.0	.0	2.2	.8	.0	.0	3.0	.0	.0	4.0	.8	.0	.0	4.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.8
10-11	.0	.0	.0	1.4	.0	.0	1.4	.0	.0	.0	1.8	.0	.0	1.8
12	.0	.6	.0	.8	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	12.2	16.8	3.0	.0	.0	32.0	.8	19.8	14.2	3.4	.0	.0	42.2

PERIOD: (OVER-ALL) 1963-1969

JULY

AREA ON21 BROOME  
16.85 121.2E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.8	.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	4.2	2.2	.0	.0	.0	6.4	.0	.8	.2	.0	.0	.0	1.0	.0
3-4	.0	.0	2.4	.0	.0	.0	6.4	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.6	.8	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	9.8	5.2	.8	.0	.0	15.8	.0	.8	.2	.0	.0	.0	1.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	96.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	4.0	5.6	.0	.0	.0	.0	9.6	
1-2	.8	23.2	10.4	.0	.0	.0	34.4	
3-4	.0	14.4	14.4	.0	.0	.0	28.8	
5-6	.0	2.4	10.4	.8	.0	.0	13.6	
7	.0	.0	6.4	1.6	.0	.0	8.0	
8-9	.0	.0	.0	.8	.0	.0	.8	
10-11	.0	.0	.0	3.2	.0	.0	3.2	
12	.0	.8	.0	.8	.0	.0	1.6	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.8	46.4	41.6	7.2	.0	.0	100.0	125

PERIOD: (OVER-ALL) 1965-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.0	22.2	16.7	8.7	1.6	.8	.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	70	3
6-7	.0	1.6	3.2	8.7	5.6	.0	4.0	.8	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31	6
8-9	.0	.0	.0	2.4	1.6	2.4	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	8
10-11	.0	.0	2.4	.0	1.6	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6	6
12-13	.0	.0	.8	.8	.0	.8	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	7
>13	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	11
INDET	1.6	.8	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	3
TOTAL	7	31	29	26	15	5	6	2	2	3	0	0	0	0	0	0	0	0	0	125	5
PCT	5.6	24.6	23.0	20.6	11.9	4.0	4.8	1.6	1.6	2.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1924-1971  
(OVER-ALL) 1865-1971

AUGUST

AREA 0021 BROOME  
16.45 121.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	5.3	.0	5.3	.0	.0	.0	.0	5.3	.0	.0	.0	.0	21.3	.0	73.3
NE	2.9	.0	1.5	.0	.0	.0	.0	4.4	.0	8.8	.0	.0	9.6	.0	77.2
E	.0	.0	.8	.0	.0	.0	.0	.8	.0	1.7	.0	.0	7.1	.0	90.3
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	.0	.0	4.8	.0	93.4
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	1.0	.0	4.1	.0	91.6
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.0	.0	.0	1.6	.0	91.3
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.5	.0	.0	2.0	.0	79.5
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.8	.0	.0	14.8	.0	75.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.6	.0	.0	21.9	.0	62.5
TOT PCT	.4	.0	.4	.0	.0	.0	.0	.6	.0	5.6	.2	.0	6.4	.0	87.3
TOT OBS:	534														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	.5	.0	.5	.0	.0	.0	.0	1.0	.0	1.6	.5	.0	6.3	.0	90.6
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.1	.0	90.9
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.7	.0	.0	4.8	.0	85.5
18021	.9	.0	.9	.0	.0	.0	.0	.9	.0	15.0	.0	.0	6.2	.0	77.9
TOT PCT	.4	.0	.4	.0	.0	.0	.0	.5	.0	6.1	.2	.0	6.4	.0	86.8
TOT OBS:	560														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	2.7	.4	.0	.0	.0		3.5	6.6		1.4	1.6	7.4	4.2	4.8	1.2	5.4	3.5
NE	.7	4.9	.7	.0	.0	.0		6.3	6.7		5.3	6.0	13.3	3.3	6.4	7.3	10.3	1.8
E	.7	8.1	2.3	.1	.0	.0		11.3	8.7		17.7	17.3	16.5	5.7	7.9	2.4	5.9	8.2
SE	1.9	16.3	7.6	.5	.0	.0		26.4	9.3		36.0	40.3	22.3	27.5	14.5	22.0	21.6	20.0
S	.8	14.3	4.3	.1	.0	.0		19.6	8.1		22.8	16.9	16.5	15.8	19.1	18.3	17.6	25.5
SW	1.9	11.5	3.8	.0	.0	.0		17.2	7.7		10.8	11.3	14.9	22.5	19.4	30.5	21.6	16.4
W	2.0	3.6	1.4	.0	.0	.0		7.0	6.3		2.0	1.6	4.3	13.3	13.0	9.8	.0	13.6
NW	.8	1.8	.2	.0	.0	.0		2.8	5.2		.0	1.6	.5	5.0	5.6	3.7	2.0	5.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.0							6.0	.0		4.1	3.2	4.3	1.7	9.2	4.9	15.7	5.5
TOT OBS	82	340	111	4	0	0		537	7.6		123	62	47	60	98	41	51	55
TOT PCT	15.3	63.3	20.7	.7	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	2.0	1.5	.0	.0	.0		3.5	6.6	1.5	5.6	3.8	4.5
NE	4.0	2.1	.2	.0	.0		6.3	6.7	5.5	7.7	6.7	5.9
E	4.6	5.3	1.4	.0	.0		11.3	8.7	17.6	11.0	6.3	7.1
SE	8.9	14.8	2.5	.2	.0		26.4	9.3	37.4	25.2	16.7	20.8
S	8.5	10.7	.3	.0	.0		19.6	8.1	20.8	16.1	18.9	21.7
SW	7.5	9.5	.1	.0	.0		17.2	7.7	10.9	19.2	22.7	18.9
W	4.5	2.6	.0	.0	.0		7.0	6.3	1.9	9.3	12.1	7.1
NW	2.1	.7	.0	.0	.0		2.8	5.2	.5	3.0	5.0	3.8
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	6.0						6.0	.0	3.8	2.8	7.9	10.4
TOT OBS	258	254	24	1	0		537	7.6	185	107	139	106
TOT PCT	48.0	47.3	4.5	.2	.0		100.0		100.0	100.0	100.0	100.0



PERIOD: (PRIMARY) 1924-1971  
(OVER-ALL) 1885-1971

AUGUST

AREA 0021 BROOME  
16.45 121.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	3.8	5.9	60.5	28.6	1.1	.0	.0	8.6	100.0	185	
06009	2.8	13.1	66.4	17.8	.0	.0	.0	7.4	100.0	107	
12015	7.9	10.1	66.9	14.4	.7	.0	.0	6.6	100.0	139	
18021	10.4	10.4	60.4	17.9	.9	.0	.0	7.2	100.0	106	
TOT	32	50	340	111	4	0	0	7.6		537	
PCT	6.0	9.3	63.3	20.7	.7	.0	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6 DBSCD	TOTAL DBS	MEAN CLOUD COVER
N	5.4	.0	.4	.0		.6
NE	6.5	.1	.1	.5		1.0
E	10.6	2.9	.4	.5		1.4
SE	19.6	2.0	1.9	.0		.9
S	17.0	.4	2.3	.0		1.1
SW	13.9	.1	.0	.0		.2
W	3.9	.0	.0	.0		.4
NW	2.1	.0	.0	.0		.1
VAR	.0	.0	.0	.0		.0
CALM	7.5	1.5	.5	.0		.9
TOT DBS	173	14	11	2	200	
TOT PCT	86.5	7.0	5.5	1.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	DBS
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.3
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	13.9
.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	23.0
.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	18.1
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	9.0
.0	.0	.0	.0	.0	1	2	2	.0	.0	1	194
.0	.0	.0	.0	.0	.5	1.0	1.0	.0	.0	.5	97.0
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.5	.5	.5	.5	.5	.5	.5	.5
>5000	.5	.5	.5	.5	.5	.5	.5	.5
>3500	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5
>2000	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
>1000	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
>600	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
>300	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
>150	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
>0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0
TOTAL	6	6	6	6	6	6	6	6

TOTAL NUMBER OF OBS: 203

PCT FREQ NH <5/8: 97.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	DBSCD	TOTAL DBS
67.8	19.6	6.5	1.9	1.4	1.4	.5	.5	.5	.0	214

PERIOD: (PRIMARY) 1924-1971  
(OVER-ALL) 1885-1971

AUGUST

AREA 0021 BROOME  
16.45 121.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSRY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.2	.6	.3	.9	.4	.3	.0	.4	.0	.4	3.4	
	TOT %	.2	.6	.3	.9	.4	.3	.0	.4	.0	.4	3.4	
2<5	PCP	.2	.3	.1	.0	.0	.0	.0	.0	.0	.0	.6	
	NO PCP	.0	.4	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	TOT %	.2	.7	.1	.0	.0	.0	.0	.0	.0	.0	.9	
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.7	1.3	4.0	15.4	9.4	8.5	4.7	1.2	.0	1.9	47.2	
	TOT %	.7	1.3	4.0	15.4	9.4	8.5	4.7	1.2	.0	1.9	47.2	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	2.4	3.8	6.7	9.8	9.8	8.5	2.4	1.3	.0	3.7	48.3	
	TOT %	2.4	3.8	6.7	9.8	9.8	8.5	2.4	1.3	.0	3.7	48.3	
TOT OBS													534
TOT PCT		3.5	6.4	11.1	26.2	19.6	17.3	7.1	2.9	.0	6.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.2	.2	.2	.0	.2	.0	.2	.0	.4	1.3	
	4-10	.2	.4	.1	.6	.2	.1	.0	.2	.0	.0	1.7	
	11-21	.0	.0	.0	.2	.2	.0	.0	.0	.0	.0	.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.6	.3	.9	.4	.3	.0	.4	.0	.4	3.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.2	.2	.0	.0	.0	.0	.0	.0	.0	.0	.4	
	11-21	.0	.5	.1	.0	.0	.0	.0	.0	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.7	.1	.0	.0	.0	.0	.0	.0	.0	.9	
5<10	0-3	.0	.0	.0	1.5	.5	1.1	1.3	.3	.0	1.9	6.5	
	4-10	.5	1.3	2.8	9.3	6.7	5.4	2.0	.7	.0	.0	28.8	
	11-21	.2	.0	1.2	4.6	2.2	2.0	1.4	.2	.0	.0	11.8	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.7	1.3	4.0	15.4	9.4	8.5	4.7	1.2	.0	1.9	47.1	
10+	0-3	.4	.6	.6	.2	.3	.6	.7	.4	.0	3.7	7.5	
	4-10	1.8	3.1	5.0	6.5	7.5	6.0	1.7	.9	.0	.0	32.5	
	11-21	.2	.2	1.0	2.6	1.8	1.9	.0	.0	.0	.0	7.7	
	22+	.0	.0	.1	.5	.1	.0	.0	.0	.0	.0	.7	
	TOT %	2.4	3.8	6.7	9.8	9.8	8.5	2.4	1.3	.0	3.7	48.4	
TOT OBS													535
TOT PCT		3.5	6.4	11.3	26.2	19.5	17.2	7.1	2.9	.0	6.0	100.0	

PERIOD: (PRIMARY) 1924-1971  
(OVER-ALL) 1985-1971

AUGUST

AREA 0021 BROOME  
16.45 121.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	1.6	98.4	61
06009	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	2.1	97.9	47
12015	.0	.0	.0	.0	2.0	2.0	2.0	.0	.0	2.0	7.8	92.2	51
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	55
TOT	0	0	0	0	1	2	2	0	0	1	6	208	214
PCT	.0	.0	.0	.0	.5	.9	.9	.0	.0	.5	2.8	97.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	2.1	1.6	53.6	42.7	192
06009	.0	.0	6.4	.0	43.6	50.0	110
12015	.7	.0	3.4	.7	51.4	43.8	146
18021	.0	.0	2.7	.9	40.7	55.8	113
TOT	1	0	19	5	272	264	561
PCT	.2	.0	3.4	.9	48.5	47.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	1000+ <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	1.7	98.3	58
06009	.0	.0	.0	2.2	97.8	45
12015	.0	.0	.0	8.3	91.7	48
18021	.0	.0	.0	.0	100.0	52
TOT	0	0	0	6	197	203
PCT	.0	.0	.0	3.0	97.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	.4	.0	.0	.0	2	.4
80/84	.0	.2	.2	2.5	1.8	1.6	.4	.0	30	6.7
75/79	.0	.7	2.0	8.3	11.9	23.3	10.5	1.3	259	58.1
70/74	.0	.0	1.6	3.8	8.3	5.6	6.3	5.2	137	30.7
65/69	.0	.0	.0	1.1	.7	.7	.4	.9	17	3.8
60/64	.0	.0	.0	.0	.2	.0	.0	.0	1	.2
TOTAL	0	4	17	70	104	139	79	33	446	100.0
PCT	.0	.9	3.8	15.7	23.3	31.2	17.7	7.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.0	.0	.0	.0	.3	.2	.0	.0	.0	.0
80/84	.4	.2	.6	2.9	1.0	1.4	.0	.0	.0	.2
75/79	1.6	3.4	4.7	16.5	12.1	9.6	5.2	1.8	.0	3.1
70/74	.7	1.3	2.8	8.6	7.3	5.4	2.1	1.2	.0	1.1
65/69	.0	.0	.8	1.0	.0	.8	.3	.0	.0	.9
60/64	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0
TOTAL	2.7	4.9	8.9	29.2	20.7	17.4	7.7	3.1	.0	5.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	85	82	80	75	69	68	68	75.0	184
06009	86	85	83	78	74	70	70	77.8	103
12015	81	80	78	76	70	68	67	75.2	195
18021	79	78	77	74	68	64	64	73.8	106
TOT	86	83	80	75	70	68	64	75.3	578

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOOR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	22.4	28.6	26.7	16.1	6.2	59	161
06009	.0	30.3	31.5	24.7	13.5	.0	56	89
12015	.0	13.8	17.1	19.8	17.1	12.2	74	123
18021	.0	14.6	14.6	12.3	27.1	11.5	75	96
TOT	0	94	109	145	85	36	71	469

AUGUST

PERIOD: (PRIMARY) 1924-1971  
(OVER-ALL) 1889-1971

TABLE 17

AREA 0021 BROOME  
16.45 121.5EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.3	.0	.0	1	.0	.3
9/10	.0	.0	.0	.0	.0	.3	.0	1	.0	.3
7/8	.0	.0	.3	1.6	1.3	.3	.3	12	.0	3.9
6	.0	.0	.3	1.0	.0	1.0	.0	7	.0	2.3
5	.0	.0	.3	.3	1.3	.7	.0	8	.0	2.6
4	.0	.3	.0	.3	3.3	1.0	.7	17	.0	5.6
3	.0	.0	.3	1.3	2.0	1.0	.0	14	.0	4.6
2	.0	.0	.7	3.3	1.6	.7	.0	19	.0	6.2
1	.0	.0	1.6	6.9	5.6	.0	.0	43	.0	12.4
0	.0	.3	.3	6.5	3.3	.0	.0	32	.0	10.5
-1	.0	.0	1.0	7.2	3.9	.0	.0	37	.0	12.1
-2	.0	.0	1.3	3.6	3.6	.0	.0	26	.0	8.5
-3	.0	.0	1.3	3.3	.3	.0	.0	15	.0	4.9
-4	.0	.0	1.3	3.6	1.0	.0	.0	18	.0	5.9
-5	.0	.0	1.0	1.3	.0	.0	.0	7	.0	2.3
-6	.0	.3	1.3	.7	.0	.0	.0	7	.0	2.3
-7/-8	.3	.3	.7	.0	.0	.0	.0	4	.0	1.3
-9/-10	.3	.3	.7	.0	.0	.0	.0	4	.0	1.3
TOTAL	1	4	38	144	96	20	3	306	0	306
PCT	.3	1.3	12.4	47.1	31.4	6.5	1.0	100.0		100.0

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.3	1.3	.0	.0	.0	.0	2.7	.0	.2	.0	.0	.0	.0	.2
1-2	.0	1.3	.0	.0	.0	.0	1.3	.0	1.2	.0	.0	.0	.0	1.2
3-4	.0	3.3	.0	.0	.0	.0	3.3	.0	3.7	.8	.0	.0	.0	4.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.3	6.0	.0	.0	.0	.0	7.3	.0	5.8	.8	.0	.0	.0	6.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.5	.8	.0	.0	.0	.0	2.3	.0	3.1	.0	.0	.0	.0	3.1
1-2	.0	6.5	.0	.0	.0	.0	6.5	.0	13.8	2.3	.0	.0	.0	16.2
3-4	.0	.8	.0	.0	.0	.0	.8	.0	.8	3.3	.0	.0	.0	4.0
5-6	.0	.0	.8	.6	.0	.0	1.3	.0	.0	.2	1.7	.0	.0	1.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.2	.0	.0	1.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	8.1	.8	.6	.0	.0	11.0	.0	18.2	7.3	1.9	.0	.0	27.7

PERIOD: (OVER-ALL) 1963-1971

AUGUST

AKEA 0021 BROOME  
16.45 121.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	1.3	.0	.0	.0	.0		1.3	.0	1.0	.0	.0	.0	.0		1.0
1-2	.8	9.6	1.3	.0	.0	.0		11.7	.0	10.6	1.7	.0	.0	.0		12.3
3-4	.0	2.7	2.7	.0	.0	.0		5.4	.0	.4	1.0	.0	.0	.0		1.3
5-6	.0	.0	.6	.0	.0	.0		.6	.0	.0	.0	.0	.0	.0		.0
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.6	.0	.0		.6	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.8	13.7	4.6	.6	.0	.0		19.6	.0	11.9	2.7	.0	.0	.0		14.6

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	.0	.0	.0	.0	.0		.0	1.0	.8	.0	.0	.0	.0		1.7	
1-2	.0	1.3	.0	.0	.0	.0		1.3	.0	.2	.0	.0	.0	.0		.2	
3-4	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	1.3	.0	.0	.0	.0		1.3	1.0	1.0	.0	.0	.0	.0		1.9	90.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	14.5	8.4	.0	.0	.0	.0	.0	22.9
1-2	.8	44.3	5.3	.0	.0	.0	.0	50.4
3-4	.0	11.5	7.6	.0	.0	.0	.0	19.1
5-6	.0	.8	1.5	2.3	.0	.0	.0	4.6
7	.0	.0	.8	.0	.0	.0	.0	.8
8-9	.0	.0	.8	.8	.0	.0	1.5	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.8	.0	.0	.0	.0	.8	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	15.3	65.6	16.0	3.1	.0	.0	100.0	131

PERIOD: (OVER-ALL) 1964-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	4.5	31.6	11.3	1.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	68	2
6-7	.0	1.5	4.5	6.0	1.5	2.3	.0	.8	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	5
8-9	.0	.0	.8	1.5	3.0	.8	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	7
10-11	.0	2.3	3.0	4.5	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	4
12-13	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDFT	12.0	1.5	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	0
TOTAL	22	49	28	18	9	4	1	1	1	0	0	0	0	0	0	0	0	0	0	133	3
PCT	16.5	36.8	21.1	13.5	6.8	3.0	.8	.8	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



## SEPTEMBER

PERIOD: (PRIMARY) 1924-1970  
(OVER-ALL) 1877-1970AREA 0021 BROOME  
16.85 121.1E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.1	5.4	.0	24.3	.0	62.2
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.8	.0	.0	4.9	.0	85.4
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.6	.0	.0	4.5	.0	87.9
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.0	.0	.0	5.0	.0	88.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.8	.0	.0	5.9	.0	89.3
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.5	.7	.0	5.1	.0	90.6
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.5	.0	.0	4.1	.0	89.4
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.3	.0	.0	12.7	.0	76.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.4	3.1	.0	12.5	.0	75.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8	.6	.0	7.0	.0	86.5
TOT OBS:	513														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA	
00603	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9	.6	.0	9.9	.0	86.5	
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	.0	91.7	
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.6	1.3	.0	5.3	.0	84.8	
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.7	.0	.0	.9	.0	84.4	
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.0	.5	.0	5.8	.0	86.6	
TOT OBS:	546															

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.5	2.7	.4	.0	.0	.0		3.6	6.5		1.4	1.7	6.3	6.3	6.2	3.0	.0	3.5
NE	.5	1.6	.2	.0	.0	.0		2.3	6.2		1.9	2.5	5.7	2.7	2.4	1.0	.0	2.7
E	1.3	4.9	1.2	.1	.0	.0		7.6	7.5		7.9	15.0	6.8	8.9	6.0	5.0	5.3	5.4
SE	.7	7.0	4.3	1.0	.0	.0		13.0	10.5		17.1	19.2	17.2	8.0	7.9	14.0	3.7	17.0
S	1.5	12.0	3.7	.2	.0	.0		17.4	8.5		26.9	17.5	7.3	19.6	10.5	14.0	18.6	20.5
SW	2.1	18.6	6.0	.0	.0	.0		26.7	8.3		26.9	20.8	25.5	20.5	26.2	33.0	37.2	25.9
W	1.3	11.1	3.5	.2	.0	.0		16.1	8.7		7.2	14.2	16.7	19.6	23.3	13.0	26.6	11.5
NW	.4	5.5	.9	.0	.0	.0		6.7	7.5		2.3	4.2	8.3	10.7	11.0	7.0	2.1	8.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.6							6.6	.0		8.4	5.0	6.3	3.6	6.7	10.0	6.4	5.4
TOT OBS	79	335	107	8	0	0	529		7.9		107	60	48	56	105	50	47	55
TOT PCT	14.9	63.3	20.2	1.5	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	2.2	1.4	.0	.0	.0			3.6	6.5		1.5	6.3	5.2	1.9
NE	1.4	.9	.0	.0	.0			2.3	6.2		2.1	4.1	1.9	1.5
E	4.1	3.2	.2	.1	.0			7.6	7.5		10.5	7.9	5.6	5.3
SE	4.2	6.5	2.2	.1	.0			13.0	10.5		17.8	12.3	9.8	10.9
S	6.0	10.9	.6	.0	.0			17.4	8.5		23.5	13.9	11.6	19.7
SW	9.2	16.7	.8	.0	.0			26.7	8.3		24.7	22.8	28.4	31.1
W	4.9	10.6	.6	.0	.0			16.1	8.7		9.7	18.3	20.0	18.4
NW	3.2	3.5	.0	.0	.0			6.7	7.5		3.0	9.6	9.7	5.3
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	6.6							6.6	.0		7.2	4.8	7.7	5.8
TOT OBS	221	284	23	1	0	529			7.9		167	104	155	103
TOT PCT	41.8	53.7	4.3	.2	.0			100.0			100.0	100.0	100.0	100.0

SEPTEMBER

PERIOD: (PRIMARY) 1924-1970  
(OVER-ALL) 1877-1970

AREA 0021 BROOME  
16.85 121.1E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOURL	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
07003	7.2	9.0	59.9	21.0	3.0	.0	.0	8.1	100.0	167
06009	4.8	6.7	66.3	21.2	1.0	.0	.0	8.0	100.0	104
12015	7.7	10.3	63.2	18.7	.0	.0	.0	7.3	100.0	155
18021	5.8	5.8	66.0	20.4	1.9	.0	.0	8.4	100.0	103
TOT	35	44	335	107	8	0	0	7.9		529
PCT	6.6	8.3	63.3	20.2	1.5	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL OBS	MEAN CLOUD COVER
N	1.9	.6	.0	.0		.6
NE	1.5	.6	.1	.0		1.1
E	2.6	.6	.4	.0		1.3
SE	11.7	.6	.3	.0		.6
S	12.6	.6	1.2	.0		.8
SW	27.1	1.7	2.5	.0		1.0
W	18.5	1.7	1.0	.0		.7
NW	5.2	.0	.0	.0		.4
VAR	.0	.0	.0	.0		.0
CALM	7.2	.0	.0	.0		.1
TOT OBS	160	11	10	0	181	.8
TOT PCT	88.4	6.1	5.5	.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT) NH >4/8  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5
.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	2.1
.0	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	3.2
.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	12.3
.0	.0	.0	.0	.0	.0	.4	.8	.0	.0	.0	13.1
.0	.0	.0	.0	.0	.1	.7	.6	.0	.0	.0	29.8
.0	.0	.0	.0	.4	.6	.0	.0	.0	.0	.0	20.2
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.2
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.2
.0	0	0	1	1	3	3	0	0	0	0	173
.0	.0	.0	.6	.6	1.7	1.7	.0	.0	.0	.0	95.6
											181
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
OR >5000	.0	.0	.0	.0	.0	.0	.0	.0
OR >3500	1.6	1.6	1.6	1.6	1.6	1.6	1.6	1.6
OR >2000	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
OR >1000	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
OR >600	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
OR >300	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
OR >150	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
OR >0	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
TOTAL	8	8	8	8	8	8	8	8

TOTAL NUMBER OF OBS: 186

PCT FREQ NH <5/8: 95.7

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
59.9	20.0	4.3	3.4	.5	1.9	1.0	1.0	.0	.0	207

PERIOD: (PRIMARY) 1924-1970  
(OVER-ALL) 1877-1970

SEPTEMBER

AREA 0021 BROOME  
16.85 121.1E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.4
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.7	.3	.6	1.1	1.4	.8	1.0	.0	.0	.8	6.8	
	TOT %	.7	.3	.6	1.1	1.4	.8	1.0	.0	.0	.8	6.8	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.1	*	.0	.0	.2	.0	.0	.0	.4	
	TOT %	.0	.0	.1	*	.0	.0	.2	.0	.0	.0	.4	
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	1.6	.9	3.9	7.1	8.6	10.1	5.1	1.6	.0	2.3	41.1	
	TOT %	1.6	.9	3.9	7.1	8.6	10.1	5.1	1.6	.0	2.3	41.1	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	1.2	.8	2.1	5.2	8.1	15.8	10.8	4.2	.0	2.9	51.1	
	TOT %	1.2	.8	2.1	5.2	8.1	15.8	10.8	4.2	.0	2.9	51.1	
TOT OBS													513
TOT PCT													
		3.6	2.0	6.4	13.0	17.7	27.5	16.6	6.9	.0	6.2	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.8
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	.8
1/2<1	0-3	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.2
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.2
1<2	0-3	.0	.2	.0	.1	.3	.0	.0	.2	.0	.8	1.6	
	4-10	.7	.1	.3	.3	.6	.8	.5	.7	.0	3.9		
	11-21	.0	.0	.0	.2	.2	.6	.3	.1	.0	1.4		
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.7	.3	.3	.6	1.1	1.4	.8	1.0	.0	.8	6.8	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.1	*	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.1	*	.0	.0	.0	.2	.0	.0	.4	
5<10	0-3	.3	.3	.7	.4	.9	.8	.8	.0	.0	2.3	6.4	
	4-10	1.3	.6	2.2	3.2	5.6	7.6	3.8	1.6	.0	25.8		
	11-21	.0	.0	.9	2.8	2.0	1.7	.5	.0	.0	8.0		
	22+	.0	.0	.1	.7	.0	.0	.0	.0	.0	.0	.0	
	TOT %	1.6	.9	3.9	7.1	8.6	10.1	5.0	1.6	.0	2.3	41.0	
10+	0-3	.0	*	.5	.2	.4	1.2	.6	.2	.0	2.9	6.0	
	4-10	.8	.6	1.2	3.2	5.9	10.7	7.1	3.4	.0	32.8		
	11-21	.4	.2	.4	1.4	1.6	3.8	2.9	.6	.0	11.3		
	22+	.0	.0	.0	.4	.2	.0	.2	.0	.0	.0	.0	
	TOT %	1.2	.8	2.1	5.2	8.1	15.7	10.7	4.2	.0	2.9	50.9	
TOT OBS													515
TOT PCT													
		3.6	2.0	6.4	12.9	17.7	27.4	16.6	6.9	.0	6.6	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1924-1970  
(OVER-ALL) 1877-1970

AREA 0021 BROOME  
16.85 121.1E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	2.0	6.0	2.0	.0	.0	.0	10.0	90.0	50
06009	.0	.0	.0	2.1	.0	.0	4.2	.0	.0	.0	6.3	93.8	48
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	58
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	51
TOT	0	0	0	1	1	3	3	0	0	0	8	199	207
PCT	.0	.0	.0	.5	.5	1.4	1.4	.0	.0	.0	3.9	96.1	100.0

TABLE 11

PERCENT FREQUENCY VSRY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	1.7	.0	10.4	.0	46.8	41.0	173
06009	.0	.0	7.4	.0	35.2	57.4	108
12015	.6	.6	5.7	.6	43.0	49.4	158
18021	.0	.0	.9	.9	43.1	55.0	109
TOT	4	1	36	2	234	271	548
PCT	.7	.2	6.6	.4	42.7	49.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	11.6	88.4	43
06009	.0	.0	2.2	4.3	93.5	46
12015	.0	.0	.0	.0	100.0	51
18021	.0	.0	.0	.0	100.0	46
TOT	0	0	1	7	178	186
PCT	.0	.0	.5	3.8	95.7	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
40/94	.0	.0	.0	.0	.2	.0	.0	.0	1	.2
45/89	.0	.2	.0	.0	.2	1.1	.0	.0	7	1.6
50/84	.0	.0	.7	1.1	4.0	5.6	2.9	.0	64	14.3
55/79	.0	.0	.9	4.9	7.4	25.7	18.8	9.4	300	67.1
60/74	.0	.0	.2	1.8	7.0	2.9	4.9	4.5	73	16.3
65/69	.0	.0	.0	.0	.2	.0	.2	.0	2	.4
TOTAL	0	1	8	35	63	158	120	62	447	100.0
PCT	.0	.2	1.8	7.8	14.1	35.3	26.8	13.9		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.2	.0	.0	.0	.0
.0	.1	.6	.0	.4	.0	.4	.0	.0	.0
.7	.1	1.8	2.0	1.3	3.5	2.0	1.3	.0	1.6
2.7	1.2	3.2	7.4	13.1	20.5	10.5	4.9	.0	3.6
.6	.2	.8	4.0	2.8	2.9	2.5	1.1	.0	1.6
.0	.0	.0	.1	.1	.2	.0	.0	.0	.0
3.9	1.6	6.4	13.6	17.8	27.4	15.3	7.3	.0	6.7

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	87	85	81	77	73	70	70	77.2	172
06009	90	88	84	79	75	73	73	79.2	103
12015	85	84	80	77	72	71	69	76.6	161
18021	81	80	79	76	71	67	67	75.5	106
TOT	90	85	81	77	72	70	67	77.1	542

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	16.4	14.5	37.5	25.7	5.9	74	152		
06009	.0	14.0	26.9	40.9	17.2	1.1	71	93		
12015	.0	3.6	9.3	32.9	30.7	23.6	81	140		
18021	.0	4.2	9.5	28.4	35.8	22.1	81	95		
TOT	0	47	69	168	132	64	77	480		

SEPTEMBER

PERIOD: (PRIMARY) 1924-1970  
(OVER-ALL) 1877-1970

TABLE 17

AREA 0021 BROOME  
16.85 121.1E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FDG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT	W FDG	NO FDG
11/13	.0	.0	.0	.3	.3	.3	.3	4	.0	1.3
9/10	.0	.0	.0	.3	.0	.0	.0	1	.0	.3
7/8	.0	.0	.0	.3	.7	.3	.0	4	.0	1.3
6	.0	.0	.3	2.3	.3	.3	.0	10	.0	3.3
5	.0	.0	.3	1.3	.3	.0	.0	6	.0	2.0
4	.0	.0	.0	1.7	.7	.3	.0	8	.0	2.7
3	.0	.0	.7	2.0	1.3	.3	.0	13	.0	4.3
2	.0	.3	1.3	5.3	1.0	.0	.0	24	.0	8.0
1	.0	.3	4.7	9.3	.7	.0	.0	45	.0	15.0
0	.0	.0	6.0	10.3	1.0	.0	.0	52	.3	17.0
-1	.0	.3	6.3	7.3	1.0	.0	.0	45	.3	14.7
-2	.0	.7	5.0	3.7	.3	.0	.0	29	.0	9.7
-3	.0	1.7	3.0	4.7	.3	.0	.0	29	.0	9.7
-4	.0	2.0	2.7	2.0	.0	.0	.0	20	.0	6.7
-5	.0	.0	1.0	.7	.0	.0	.0	5	.0	1.7
-6	.0	.3	.0	.3	.0	.0	.0	2	.0	.7
-7/-8	.0	.7	.0	.0	.0	.0	.0	2	.0	.7
-9/-10	.3	.0	.0	.0	.0	.0	.0	1	.0	.3
TOTAL	1		94		24	5	1	300		298
PCT	.3	19	6.3	31.3	52.0	8.0	1.7	100.0	.7	99.3

PERIOD: (OVER-ALL) 1963-1970

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.4	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.6	.8	.0	.0	.0	1.4	.0	.6	.0	.0	.0	.0	.6
3-4	.0	.8	.0	.0	.0	.0	.8	.0	1.0	.8	.0	.0	.0	1.8
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.7	.8	.0	.0	.0	3.5	.0	1.6	.8	.0	.0	.0	2.3

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.6	.0	.0	.0	.0	.0	.6	.2	2.1	.0	.0	.0	.0	2.3
1-2	.0	1.2	.0	.0	.0	.0	1.2	.0	5.5	.0	.0	.0	.0	5.5
3-4	.0	.8	.6	.0	.0	.0	1.2	.0	1.0	1.0	.0	.0	.0	2.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.8
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.6	1.8	.6	.0	.0	.0	2.9	.2	8.6	1.8	1.6	.0	.0	12.1



PERIOD: (OVER-ALL) 1963-1970

SEPTEMBER

AREA 0021 BROOME  
16.85 121.1E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	2.3	.0	.0	.0	.0		2.3	.8	2.1	.0	.0	.0	.0		2.9	
1-2	.0	5.9	.8	.0	.0	.0		6.6	.0	12.5	3.9	.0	.0	.0		16.4	
3-4	.0	2.7	.6	.8	.0	.0		4.1	.0	5.9	3.5	.0	.0	.0		9.4	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.8	3.1	.0	.0	.0		3.9	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	10.9	1.4	.8	.0	.0		13.1	.8	21.3	10.5	.0	.0	.0		32.6	

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	2.7	.0	.0	.0	.0		2.7	.0	.2	.0	.0	.0	.0		.2	
1-2	1.6	7.4	.8	.0	.0	.0		9.8	.0	3.9	.0	.0	.0	.0		3.9	
3-4	.0	2.0	2.9	.0	.0	.0		4.9	.0	1.8	.0	.0	.0	.0		1.8	
5-6	.0	.0	.8	.0	.0	.0		.8	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	1.6	.8	.0	.0		2.3	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	1.6	12.1	6.1	.8	.0	.0		20.5	.0	5.9	.0	.0	.0	.0		5.9	93.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.7	10.7	.0	.0	.0	.0	21.4	
1-2	1.5	36.6	6.1	.0	.0	.0	44.3	
3-4	.0	15.3	9.2	.8	.0	.0	25.2	
5-6	.0	.8	3.8	.8	.0	.0	5.3	
7	.0	.0	2.3	.8	.0	.0	3.1	
8-9	.0	.0	.0	.0	.0	.0	.8	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.2	63.4	21.4	3.1	.0	.0	100.0	131

PERIOD: (OVER-ALL) 1950-1970

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	10.9	31.2	14.5	2.9	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	83	2
6-7	.0	1.4	12.3	1.4	1.4	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	4
7-9	.0	.0	1.4	7.2	4.3	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	5
10-11	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
12-13	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	5.1	.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	1
TOTAL	22	46	41	17	9	3	0	0	0	0	0	0	0	0	0	0	0	0	0	138	3
PCT	15.9	33.3	29.7	12.3	6.5	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

## OCTOBER

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1856-1969

AREA 0021 BROOME  
16.65 121.3E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8	.0	.0	29.5	.0	63.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0	.0	10.0	.0	80.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.6	.0	.0	.0	.0	94.4
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	.0	.0	.0	.0	94.7
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.5	.0	.0	4.1	.0	86.4
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.0	1.6	.0	8.8	.0	79.7
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.2	.0	.0	8.0	.0	81.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.8	.0	.0	11.8	.0	76.5
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.6	.7	.0	6.8	.0	83.9
TOT OBS:	440														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG SNOW	NO SIG WEA
00003	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.1	.7	.0	12.8	.0	82.4
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.1	.0	89.9
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.9	1.4	.0	2.2	.0	80.4
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.9	.0	.0	1.2	.0	85.9
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.3	.6	.0	7.0	.0	84.0
TOT OBS:	470														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.5	3.3	.9	.0	.0	.0		4.7	7.0	1.8	7.3	7.5	10.9	4.8	.0	.0	.0	3.3
NE	.0	2.1	.2	.0	.0	.0		2.4	6.3	7.1	2.4	3.1	.0	2.4	.0	.0	.0	.0
E	.3	1.6	.6	.0	.0	.0		2.5	7.9	1.8	4.8	6.9	1.6	1.1	.0	.0	.0	1.1
SE	.4	4.6	.2	.0	.0	.0		5.2	7.1	7.1	8.9	5.0	3.9	3.8	2.3	.8	.8	7.5
S	.6	9.2	1.3	.0	.0	.0		11.1	7.8	14.4	15.7	7.5	10.9	10.2	10.2	6.8	4.8	7.5
SW	.8	22.8	8.7	.0	.0	.0		32.3	9.1	34.7	28.6	22.5	26.6	37.5	42.0	23.5	45.7	45.7
W	2.0	18.5	7.5	.0	.0	.0		28.1	8.7	16.2	22.6	33.8	30.5	29.8	37.5	39.4	28.3	28.3
NW	.9	7.5	1.3	.0	.0	.0		9.7	7.5	8.8	8.1	13.8	14.1	12.1	5.7	8.3	4.3	4.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.1							4.1	.0	8.2	1.6	.0	1.6	3.2	2.3	15.2	2.2	2.2
TOT DBS	45	325	97	0	0	0	467		8.0	85	62	40	64	93	44	33	48	48
TOT PCT	9.6	69.6	20.8	.0	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	06	12	18
N	2.7	2.0	.0	.0	.0			4.7	7.0	4.1	9.6	3.3	1.9	.0
NE	1.6	.7	.0	.0	.0			5.1	1.2	1.2	1.6	.0	.0	.0
E	1.4	.9	.2	.0	.0			2.5	7.9	2.1	3.6	.7	3.2	.0
SE	2.4	2.6	.2	.0	.0			5.2	7.1	7.8	4.3	3.3	4.7	.0
S	4.3	6.5	.7	.0	.0			11.1	7.8	15.0	9.6	10.2	7.3	.0
SW	8.8	22.2	1.3	.0	.0			32.3	9.1	32.1	25.0	35.6	36.4	.0
W	8.0	19.3	.7	.0	.0			28.1	8.7	18.9	31.7	32.3	32.9	.0
NW	4.2	5.4	.1	.0	.0			9.7	7.5	8.5	13.9	10.0	6.0	.0
VAR	.0	.0	.0	.0	.0			.0	.0	.0	.0	.0	.0	.0
CALM	4.1							4.1	.0	5.4	1.0	2.9	7.6	.0
TOT DBS	175	279	13	0	0	467			8.0	147	104	137	79	
TOT PCT	37.5	59.7	2.8	.0	.0			100.0		100.0	100.0	100.0	100.0	

## OCTOBER

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1856-1969

AREA 0021 BROOME  
16.65 121.3E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	5.4	5.4	71.4	17.7	.0	.0	.0	7.6	100.0	147
04009	1.0	7.7	72.1	19.2	.0	.0	.0	8.1	100.0	104
12015	2.9	3.6	70.1	23.4	.0	.0	.0	8.4	100.0	137
18021	7.6	6.3	62.0	24.1	.0	.0	.0	8.1	100.0	79
TOT	19	26	325	97	0	0	0	8.0		467
PCT	4.1	5.6	69.6	20.8	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.9	.0	.0	.0		.2
NE	3.3	.0	.0	.0		.8
E	4.2	.0	.0	.0		.1
SE	2.4	.0	.7	.0		1.8
S	6.9	1.3	.0	.0		.8
SW	26.6	1.6	2.2	.0		.7
W	28.1	2.6	.0	.0		.5
NW	7.3	1.8	1.5	.0		1.7
VAR	.0	.0	.0	.0		.0
CALM	4.4	2.2	.0	.0		1.4
TOT OBS	118	13	6	0	137	.8
TOT PCT	86.1	9.5	4.4	.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	130	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.2
SE	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	2.4
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.2
SW	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	29.7
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	30.7
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.6
TOT OBS	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	137
TOT PCT	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	98.5
												100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	OR >10	OR >5	OR >2	VSBY (NM) OR >1	OR >1/2	OR >1/4	OR >50 YD	OR >0
OR >4500	.0	.0	.0	.0	.0	.0	.0	.0
OR >4000	.0	.0	.0	.0	.0	.0	.0	.0
OR >3500	.0	.0	.0	.0	.0	.0	.0	.0
OR >3000	.0	.0	.0	.0	.0	.0	.0	.0
OR >2500	.0	.0	.0	.0	.0	.0	.0	.0
OR >2000	.0	.0	.0	.0	.0	.0	.0	.0
OR >1500	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
OR >1000	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
OR >800	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
OR >600	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
OR >400	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
OR >300	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
OR >150	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
OR >0	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
TOTAL	2	2	2	2	2	2	2	2

TOTAL NUMBER OF OBS: 138

PCT FREQ NH &lt;5/8: 98.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 OBSCD	TOTAL OBS
	61.5	18.2	8.1	5.4	4.7	.0	1.4	.7	.0	148

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1854-1969

OCTOBER

AREA 0021 BROOME  
16.65 121.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.2	.0	.0	.0	.0	.5	.0	.0	.0	.0	.7
	TOT %	.0	.2	.0	.0	.0	.0	.5	.0	.0	.0	.0	.7
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	1.6	.2	.0	.0	.3	2.6	3.2	.9	.0	.5	9.3	
	TOT %	1.6	.2	.0	.0	.3	2.6	3.2	.9	.0	.5	9.3	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	1.7	.8	.7	2.0	6.0	17.7	13.3	5.0	.0	1.4	48.6	
	TOT %	1.7	.8	.7	2.0	6.0	17.7	13.3	5.0	.0	1.4	48.6	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	1.7	1.0	1.4	2.0	4.4	13.1	11.6	4.1	.0	2.0	41.4	
	TOT %	1.7	1.0	1.4	2.0	4.4	13.1	11.6	4.1	.0	2.0	41.4	
TOT OBS													440
TOT PCT													
		5.0	2.3	2.1	4.0	10.7	33.5	28.5	10.0	.0	3.9	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.2	.0	.0	.0	.0	.5	.0	.0	.0	.7	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.0	.0	.0	.5	.0	.0	.0	.7	
1<2	0-3	.2	.0	.0	.0	.0	.0	.1	.1	.0	.5	.9	
	4-10	.9	.2	.0	.0	.3	1.8	2.2	.7	.0	.0	6.1	
	11-21	.5	.0	.0	.0	.0	.8	.9	.1	.0	.0	2.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	1.6	.2	.0	.0	.3	2.6	3.2	.9	.0	.5	9.3	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	0-3	.0	.0	.0	.1	.5	.6	.5	.2	.0	1.4	3.2	
	4-10	1.5	.8	.7	1.9	5.0	13.5	10.3	3.6	.0	.0	37.4	
	11-21	.2	.0	.0	.0	.5	3.6	2.5	1.1	.0	.0	7.9	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	1.7	.8	.7	2.0	6.0	17.7	13.3	5.0	.0	1.4	48.5	
10+	0-3	.3	.0	.2	.2	.2	.3	.7	.3	.0	2.0	4.3	
	4-10	1.1	.8	.7	1.5	3.3	8.0	6.3	3.6	.0	.0	25.4	
	11-21	.2	.2	.5	.2	.9	4.8	4.5	.2	.0	.0	11.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	1.7	1.0	1.4	2.0	4.4	13.1	11.6	4.1	.0	2.0	41.3	
TOT OBS													441
TOT PCT													
		5.0	2.5	2.1	4.0	10.7	33.4	28.5	10.0	.0	3.9	100.0	

## OCTOBER

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1856-1969

AREA 0021 BROOME  
16.65 121.3E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH  $\geq 4/8$ ) AND  
OCCURRENCE OF NH  $< 5/8$  BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $< 5/8$ ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	2.8	.0	.0	.0	.0	.0	2.8	97.2	36
06009	.0	.0	.0	.0	2.4	.0	.0	.0	.0	.0	2.4	97.6	41
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	36
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	34
TOT	0	0	0	0	2	0	0	0	0	0	2	145	147
PCT	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	1.4	98.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	$< 1/2$	$1/2 < 1$	$1 < 2$	$2 < 5$	$5 < 10$	$10+$	TOTAL OBS
00003	.7	.7	14.8	.0	49.0	34.9	149
06009	.0	.0	10.1	.0	39.4	50.5	99
12015	.0	1.4	8.0	.7	55.1	34.8	138
18021	.0	.0	1.2	.0	54.1	44.7	85
TOT	1	3	44	1	234	188	471
PCT	.2	.6	9.3	.2	49.7	39.9	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH  $\geq 4/8$ ), BY HOUR

HOUR (GMT)	$< 150$ $< 50$ VD	$< 600$ $< 1$	$< 1000$ $< 5$	$1000+$ AND $5+$	NH $< 5/8$ AND $5+$	TOTAL OBS
00003	.0	.0	.0	3.0	97.0	33
06009	.0	.0	.0	2.6	97.4	39
12015	.0	.0	.0	.0	100.0	34
18021	.0	.0	.0	.0	100.0	32
TOT	0	0	0	2	136	138
PCT	.0	.0	.0	1.4	98.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	1.5	1.2	.3	.0	10	2.9
80/84	.0	.0	.0	.0	4.7	19.1	17.6	1.8	147	43.1
75/79	.0	.0	.0	.9	.9	15.8	20.2	12.9	173	50.7
70/74	.0	.0	.0	.0	.3	1.2	.9	.9	11	3.2
TOTAL	0	0	0	3	25	127	133	53	341	100.0
PCT	.0	.0	.0	.9	7.3	37.2	39.0	15.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.3	.3	.0	.0	.5	.7	1.0	.1	.0	.0
2.2	1.8	1.3	2.8	6.3	13.5	8.8	5.6	.0	.9
2.3	.5	1.0	1.7	3.7	19.6	16.6	2.9	.0	2.3
.1	.0	.0	.1	.1	1.2	.9	.7	.0	.0
4.9	2.6	2.3	4.6	10.6	35.0	27.3	9.4	.0	3.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	93	86	84	80	76	73	73	80.1	148
06009	88	87	86	81	78	75	75	81.6	101
12015	85	84	83	79	75	74	72	79.0	140
18021	83	82	82	78	73	72	72	78.0	81
TOT	93	86	85	80	75	73	72	79.7	470

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	1.7	13.3	40.8	35.8	8.3	79	120
06009	.0	.0	15.1	49.3	30.1	5.5	77	73
12015	.0	.9	2.8	32.1	43.1	21.1	83	109
18021	.0	.0	3.1	26.2	43.1	27.7	84	85
TOT	0	3	32	137	140	55	81	367



## OCTOBER

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1856-1969

TABLE 17

AREA 0021 BROOME  
16.65 121.3E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	NO FOG
9/10	.0	.0	.0	.0	.0	.0	.4	1	.0	.4
7/8	.0	.0	.0	.4	.4	.0	.0	2	.0	.8
6	.0	.0	.4	.0	.8	.0	.0	3	.0	1.2
5	.0	.0	.8	.4	.8	.0	.0	5	.0	2.0
4	.0	.0	.4	2.4	.4	.0	.0	8	.0	3.1
3	.0	.0	.8	2.4	.8	.0	.0	10	.0	3.9
2	.0	.8	3.9	3.9	1.6	.0	.0	26	.0	10.2
1	.0	.4	5.1	9.4	1.6	.0	.0	42	.0	16.5
0	.0	2.0	8.7	8.3	.0	.0	.0	48	.4	18.5
-1	.0	2.0	11.0	4.3	.0	.0	.0	44	.0	17.3
-2	.0	1.6	4.7	3.9	.0	.0	.0	26	.4	9.8
-3	.0	.4	3.9	.8	.0	.0	.0	13	.0	5.1
-4	.0	.8	2.0	1.2	.0	.0	.0	10	.0	3.9
-5	.0	.8	2.0	.0	.0	.0	.0	7	.0	2.8
-6	.0	1.2	.8	.0	.0	.0	.0	5	.0	2.0
-7/-8	1.2	.0	.0	.0	.0	.0	.0	3	.0	1.2
-9/-10	.0	.4	.0	.0	.0	.0	.0	1	.0	.4
TOTAL	3		113		16		1	254	2	252
PCT	1.2	10.2	44.5	37.4	6.3	.0	.4	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.3	.0	.0	.0	.0	2.3	.0	2.3	1.0	.0	.0	.0	3.4
3-4	.0	.8	.0	.0	.0	.0	.8	.0	1.0	.0	.0	.0	.0	1.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.1	.0	.0	.0	.0	3.1	.0	3.4	1.0	.0	.0	.0	4.4

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	1.0
1-2	1.0	2.1	.0	.0	.0	.0	3.1	.0	2.1	.0	.0	.0	.0	2.1
3-4	.0	.0	1.0	.0	.0	.0	1.0	.0	.3	.0	.0	.0	.0	.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	1.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	2.1	1.0	.0	.0	.0	4.2	1.0	2.3	1.0	.0	.0	.0	4.4

PERIOD: (OVER-ALL) 1963-1969

OCTOBER

AREA 0021 BROOME  
16.65 121.3E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S						PCT	SW						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.8	.0	.0	.0	.0	.0	.8	.3	.0	.0	.0	.0	.0	.3
1-2	.0	6.3	.0	.0	.0	.0	6.3	.0	12.5	1.6	.0	.0	.0	14.1
3-4	.0	2.3	.0	.0	.0	.0	2.3	.0	2.9	8.9	.0	.0	.0	11.7
5-6	.0	.0	.0	.0	.0	.0	.0	.0	3.1	3.9	.0	.0	.0	7.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	8.6	.0	.0	.0	.0	9.4	.3	18.5	14.3	.0	.0	.0	33.1

HGT	W						PCT	NW						TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.0	1.8	.0	.0	.0	.0	2.9	1.0	2.3	.0	.0	.0	.0	3.4
1-2	.0	8.3	1.6	.0	.0	.0	9.9	.0	5.7	.0	.0	.0	.0	5.7
3-4	.0	.8	8.6	.0	.0	.0	9.4	.0	3.4	.3	.0	.0	.0	3.6
5-6	.0	.0	2.3	.0	.0	.0	2.3	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	10.9	12.5	.0	.0	.0	24.5	1.0	11.5	.3	.0	.0	.0	12.8 95.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	8.3	4.2	.0	.0	.0	.0	12.5	
1-2	1.0	41.7	4.2	.0	.0	.0	46.9	
3-4	.0	11.5	18.8	.0	.0	.0	30.2	
5-6	.0	3.1	7.3	.0	.0	.0	10.4	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	9.4	60.4	30.2	.0	.0	.0	100.0	96

PERIOD: (OVER-ALL) 1960-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.1	29.6	23.5	3.1	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	65
6-7	1.0	2.0	4.1	9.2	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18
8-9	.0	.0	1.0	4.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5
10-11	.0	3.1	4.1	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8
12-13	.0	.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
>13	.0	.0	.0	1.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
INDET	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
TOTAL	7	34	34	18	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	98	3
PCT	7.1	34.7	34.7	18.4	3.1	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1890-1969

NOVEMBER

AREA 0021 BROOME  
16.85 121.4E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.9	.0	.0	28.1	.0 60.9
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.2	.0	.0	.0	.0 91.8
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.8	.0	.0	21.6	.0 67.6
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.5	.0 92.5
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.8	.0 91.2
SW	.0	.7	.0	.0	.0	.0	.0	.7	.0	5.9	.0	.0	12.5	.0 80.9
W	.0	.3	.0	.0	.0	.0	.0	.3	.0	9.9	.0	.0	11.1	.0 78.7
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.3	.0	.0	22.9	.0 64.8
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0 1.0
CALM	.0	6.3	.0	.0	.0	.0	.0	6.3	.0	.0	.0	.0	25.0	.0 68.8
TOT PCT	.0	.5	.0	.0	.0	.0	.0	.5	.0	8.6	.0	.0	15.3	.0 75.6
TOT OBS:	418													

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA						
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST SIG WEA
00003	.0	1.6	.0	.0	.0	.0	.0	1.6	.0	3.1	.0	.0	18.6	.0 76.7
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	.0	.0	25.0	.0 73.8
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.3	.0	.0	14.8	.0 71.9
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.1	.0	.0	4.3	.0 79.6
TOT PCT	.0	.5	.0	.0	.0	.0	.0	.5	.0	8.5	.0	.0	15.7	.0 75.3
TOT OBS:	434													

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+ TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	49+				00	03	06	09	12	15	18	21
N	1.4	4.5	1.2	.4	.0	.0	.0	7.5	7.5	10.8	7.7	2.3	12.3	7.6	5.6	10.0	1.0	1.0
NE	1.3	1.5	.2	.0	.0	.0	.0	3.0	5.5	6.4	.0	6.8	2.0	4.0	2.2	.0	.0	.0
E	.6	1.3	.5	.0	.0	.0	.0	2.4	7.0	3.4	8.7	3.0	1.0	.0	1.1	2.5	1.0	1.0
SE	1.1	2.0	.1	.0	.0	.0	.0	3.2	5.3	8.1	5.6	12.1	.0	.0	.0	.0	1.0	1.0
S	.4	3.0	.6	.0	.0	.0	.0	4.0	7.5	7.8	3.1	3.0	3.9	2.7	3.3	2.5	3.8	3.8
SW	2.0	8.5	8.3	.4	.0	.0	.0	19.2	9.9	26.0	19.4	3.0	18.6	15.2	24.4	13.1	26.4	26.4
W	2.8	18.0	15.8	.4	.0	.0	.0	36.9	10.2	23.6	34.2	36.4	31.4	39.0	45.6	50.6	42.8	42.8
NW	1.9	9.1	8.0	.8	.2	.0	.0	20.0	10.8	9.8	19.4	24.2	30.9	26.5	15.6	11.3	22.1	22.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.8	204	148	8	1	0	476	3.8	.0	4.1	2.0	9.1	.0	4.9	2.2	10.0	.0	.0
TOT OBS	55	204	148	8	1	0	476	9.2		74	49	33	51	82	45	40	52	52
TOT PCT	15.3	47.9	34.7	1.9	.2	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+ TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	03	06	12
N	5.0	1.6	.8	.1	.0		7.5	9.6	8.3	6.9	4.9
NE	2.0	.9	.1	.0	.0		3.0	3.9	3.9	3.3	.5
E	1.2	1.2	.0	.0	.0		2.4	5.5	1.8	.4	1.6
SE	2.2	1.1	.0	.0	.0		3.2	5.3	7.1	4.8	1.1
S	1.8	2.2	.0	.0	.0		4.0	7.5	5.9	3.6	3.0
SW	5.8	11.2	2.2	.0	.0		19.2	9.9	23.4	12.5	18.5
W	4.0	23.2	4.6	.1	.0		36.9	10.2	27.8	33.3	41.3
NW	5.6	11.3	2.7	.5	.0		20.0	10.8	13.6	28.3	22.6
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0
CALM	3.8						3.8	.0	3.3	3.6	3.9
TOT OBS	155	224	44	3	0	426	9.2	123	84	127	92
TOT PCT	36.4	52.6	10.3	.7	.0		100.0	100.0	100.0	100.0	100.0

NOVEMBER

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1890-1969

AREA 0021 BROOME  
16.85 121.46

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
0000	3.3	13.0	52.8	29.3	1.6	.0	.0	8.3	100.0	123
0600	3.6	9.5	46.4	36.9	2.4	1.2	.0	10.2	100.0	84
1200	3.9	9.4	43.3	41.7	1.6	.0	.0	9.6	100.0	127
1800	4.3	14.1	48.9	30.4	2.2	.0	.0	8.8	100.0	92
TOT	16	49	204	148	8	1	0	9.2		426
PCT	3.8	11.5	47.9	34.7	1.9	.2	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	6.9	.0	1.4	.5		2.3
NE	5.3	.0	.0	.2		1.4
E	2.0	.0	.0	.0		.6
SE	2.3	1.4	.0	.0		1.3
S	1.8	.0	1.4	.4		3.7
SW	9.4	2.3	.2	.4		1.4
W	29.8	5.7	3.2	1.2		1.6
NW	9.9	2.0	3.7	.2		2.3
VAR	.0	.0	.0	.0		.0
CALM	7.1	.0	1.4	.0		1.0
TOT OBS	105	16	4		141	1.7
TOT PCT	74.5	11.3	11.3	2.8	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)  
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH < 5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.0	1.2	.0	.0	.0	.0	7.6	
NE	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	5.3	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7	
S	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	3.2	
SW	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	11.9	
W	.0	.0	.0	.0	1.2	.7	.7	.0	.0	.0	37.2	
NW	.0	.0	.0	.0	.9	.7	.0	.0	.0	.0	19.5	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.5	
TOT OBS	0	0	0	0	3	4	1	0	1	1	131	141
TOT PCT	.0	.0	.0	.0	2.1	2.8	.7	.0	.7	.7	92.9	100.0

TABLE 7

CUMULATIVE PCT FRQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
>5000	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4
>3500	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
>2000	4.9	4.9	4.9	4.9	4.9	4.9	4.9	4.9
>1000	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
>600	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
>300	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
>150	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
>0	7.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
TOTAL	10	10	10	10	10	10	10	10

TOTAL NUMBER OF OBS: 142

PCT FREQ NH < 5/8 93.0

TABLE 7A

PERCENTAGE FRQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	43.5	27.2	11.6	5.4	4.8	.7	1.4	2.7	2.7	.0	147

## NOVEMBER

PERIOD: (PRIMARY) 1922-1969  
(OVER-ALL) 1890-1969AREA 0021 BROOME  
16.85 121.4E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.2	
	NO PCP	2.4	.2	.7	.2	.4	2.4	4.4	5.3	.0	.0	16.0	
	TOT %	2.4	.2	.7	.2	.4	2.4	4.4	5.3	.0	.2	16.3	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	PCP	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	
	NO PCP	2.5	.8	.6	1.6	1.7	8.3	15.9	8.4	.0	1.2	40.9	
	TOT %	2.5	.8	.6	1.6	1.7	8.4	16.0	8.4	.0	1.2	41.1	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	2.8	1.9	.9	1.4	2.0	7.4	17.2	6.8	.0	2.4	42.6	
	TOT %	2.8	1.9	.9	1.4	2.0	7.4	17.2	6.8	.0	2.4	42.6	
TOT OBS													
TOT PCT													
		7.7	2.9	2.2	3.2	4.1	18.1	37.6	20.4	.0	3.8	100.0	418

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.2	.1	.1	.2	.0	.5	.5	.5	.0	.2	2.4	
	4-10	1.3	.0	.2	.0	.2	.7	1.0	1.8	.0	.0	5.3	
	11-21	.5	.1	.4	.0	.1	1.2	2.8	1.9	.0	.0	6.9	
	22+	.4	.0	.0	.0	.0	.0	.2	1.1	.0	.0	1.7	
	TOT %	2.4	.2	.7	.2	.4	2.4	4.4	5.3	.0	.2	16.3	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	0-3	.2	.2	.0	.2	.0	.2	1.2	.5	.0	1.2	3.8	
	4-10	1.9	.6	.5	1.2	1.3	3.0	8.4	4.9	.0	.0	21.8	
	11-21	.4	.0	.1	.1	.4	5.0	6.3	3.0	.0	.0	15.3	
	22+	.0	.0	.0	.0	.0	.1	.1	.0	.0	.0	.2	
	TOT %	2.5	.8	.6	1.6	1.7	8.4	16.0	8.4	.0	1.2	41.1	
10+	0-3	1.0	1.0	.4	.5	.4	1.3	1.2	1.0	.0	2.4	9.1	
	4-10	1.4	.8	.5	.8	1.5	3.5	9.0	2.6	.0	.0	20.1	
	11-21	.4	.1	.0	.0	.2	2.3	7.0	3.2	.0	.0	13.2	
	22+	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	
	TOT %	2.8	1.9	.9	1.4	2.0	7.4	17.2	6.8	.0	2.4	42.6	
TOT OBS													
TOT PCT													
		7.7	2.9	2.2	3.2	4.1	18.1	37.6	20.4	.0	3.8	100.0	418



PERIOD: (PRIMARY) 1927-1949  
(OVER-ALL) 1890-1949

# NOVEMBER

AREA 0021 BROOME  
16.85 121.4E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOURL (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	5500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	.0	6.5	3.2	.0	.0	.0	9.7	90.3	31
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	3.0	97.0	33
12015	.0	.0	.0	.0	2.6	.0	.0	.0	.0	.0	2.6	97.4	38
18021	.0	.0	.0	.0	4.5	4.5	.0	.0	2.3	.0	11.4	88.6	44
TOT	0	0	0	0	3	4	1	0	1	1	10	136	146
PCT	.0	.0	.0	.0	2.1	2.7	.7	.0	.7	.7	6.8	93.2	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOURL (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	18.6	.0	50.4	31.0	129
06009	.0	.0	23.8	.0	32.1	44.0	84
12015	.0	.0	18.0	.0	43.0	39.1	128
18021	.0	.0	5.4	.0	38.7	55.9	93
TOT	0	0	72	0	183	179	434
PCT	.0	.0	16.6	.0	42.2	41.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOURL (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	10.0	90.0	30
06009	.0	.0	.0	3.0	97.0	33
12015	.0	.0	.0	2.7	97.3	37
18021	.0	.0	.0	11.9	88.1	42
TOT	0	0	0	10	132	142
PCT	.0	.0	.0	7.0	93.0	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
84/89	.0	.0	.3	1.0	2.6	5.5	3.1	.0	48	12.5
80/84	.0	.0	.0	.0	3.1	17.4	40.4	15.4	293	76.3
75/79	.0	.0	.0	.0	.0	4.7	4.7	1.8	43	11.2
TOTAL	0	0	1	4	22	106	185	66	384	100.0
PCT	.0	.0	.3	1.0	5.7	27.6	48.2	17.2		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
1.2	.6	.3	1.2	.5	1.5	3.9	2.8	.0	.5	
6.6	1.7	1.8	2.3	2.9	14.0	27.3	18.6	.0	3.1	
.3	.4	.1	.0	.0	3.1	6.4	1.0	.0	.0	
8.1	2.7	2.1	3.5	3.5	18.6	37.6	20.4	.0	3.6	

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOURL (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	88	87	83	78	77	77	82.7	125
06009	89	88	88	84	79	77	77	83.6	82
12015	86	85	84	82	77	75	75	81.7	125
18021	84	83	83	81	77	75	75	80.6	90
TOT	90	88	86	82	77	75	75	82.1	422

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOURL (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	1.7	6.0	32.5	45.3	14.5	81	117		
06009	.0	2.6	10.3	38.5	39.7	9.0	78	78		
12015	.0	.9	2.5	21.4	53.8	21.4	84	117		
18021	.0	.0	4.5	20.5	53.4	21.6	84	88		
TOT	0	5	22	111	194	68	82	400		

## NOVEMBER

PERIOD: (PRIMARY) 1927-1969  
(OVER-ALL) 1890-1969

TABLE 17

AREA 0021 BROOME  
16.85 121.4E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.4	.0	1	.0	.4
7/8	.0	.0	.0	.4	.0	1	.0	.4
6	.0	.0	.0	.8	.0	2	.0	.8
5	.0	.0	.4	.4	.0	2	.0	.8
4	.0	.4	.0	1.2	.4	5	.0	2.0
3	.0	.4	2.0	2.8	.0	13	.0	5.3
2	.0	.8	4.0	1.2	.4	16	.0	6.5
1	.0	3.2	8.5	2.8	.0	36	.0	14.6
0	.4	4.0	15.4	2.0	.0	54	.0	21.9
-1	.0	6.5	10.5	2.0	.0	47	.0	19.0
-2	.0	4.5	9.7	.4	.0	36	.0	14.6
-3	.0	1.6	5.3	.0	.0	17	.0	6.9
-4	.0	.4	2.4	.0	.0	7	.0	2.8
-5	.0	.0	.8	.0	.0	2	.0	.8
-6	.0	.4	1.6	.0	.0	5	.0	2.0
-7/-8	.4	.4	.4	.0	.0	3	.0	1.2
TOTAL	2		151		2		0	247
		56		36		247		
PCT	.8	22.7	61.1	14.6	.8	100.0		100.0

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.8	1.6	.0	.0	.0	.0	3.4	1.8	.2	.0	.0	.0	.0	2.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	2.7	.0	.0	.0	.0	2.7
3-4	.0	.0	.9	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.8	1.6	.9	.0	.0	.0	4.3	1.8	2.9	.0	.0	.0	.0	4.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	.0	.0	.0	.0	.0	.9	1.8	.9	.0	.0	.0	.0	2.7
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.9
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	.0	.0	.0	.0	.0	.9	1.8	2.7	.0	.0	.0	.0	4.5

PERIOD: (OVER-ALL) 1963-1969

NOVEMBER

AREA 0021 BROOME  
16.85 121.4E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.9	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.5	.0	.0	.0	.0	2.5	.0	.9	3.8	.0	.0	.0	.0	.0	4.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2	.9	.0	.0	.0	.0	1.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.0	2.9	.0	.0	.0	.0	5.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.9	.0	.0	.0	.9
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.4	.0	.0	.0	.0	3.4	.0	.9	6.1	3.8	.9	.0	.0	.0	11.7

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.9	.0	.0	.0	.0	.0	.9	.0	3.6	1.8	.9	.0	.0	.0	.0	6.3	
1-2	.9	17.3	2.7	.0	.0	.0	20.9	.0	.0	5.2	.9	.0	.0	.0	.0	6.1	
3-4	.0	5.2	5.6	.0	.0	.0	10.8	.0	.0	.0	1.6	.0	.0	.0	.0	1.6	
5-6	.0	.7	5.9	.0	.0	.0	6.5	.0	.0	.0	4.7	.0	.0	.0	.0	4.7	
7	.0	.0	1.8	.0	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.8	23.2	16.0	.0	.0	.0	41.0	.0	3.6	7.0	8.1	.0	.0	.0	.0	18.7	89.2

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	22.3	5.4	.9	.0	.0	.0	28.6	
1-2	1.8	32.1	3.6	.0	.0	.0	37.5	
3-4	.0	5.3	8.9	.0	.0	.0	15.2	
5-6	.0	2.7	13.4	.0	.0	.0	16.1	
7	.0	.0	1.8	.9	.0	.0	2.7	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	24.1	46.4	28.6	.9	.0	.0	100.0	112

PERIOD: (OVER-ALL) 1959-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	3.1	21.9	10.2	4.7	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	52	3
6-7	.0	.0	19.5	8.6	3.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	40	4
8-9	.0	.0	1.6	.0	2.3	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13	5
10-11	.0	.8	3.9	.0	4.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	11.7	.8	.0	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	0
TOTAL	19	30	45	18	13	3	0	0	0	0	0	0	0	0	0	0	0	0	0	128	3
PCT	14.8	23.4	35.2	14.1	10.2	2.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.5	

## DECEMBER

PERIOD: (PRIMARY) 1922-1971  
(OVER-ALL) 1888-1971AREA 0021 BROOME  
16.85 121.4E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	1.8	.0	.0	.0	.0	.0	.0	1.8	.0	5.4	.0	.0	9.0	.0	83.6
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.3	.0	.0	6.7	.0	80.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.4	.0	.0	2.2	.0	93.4
SW	.0	.7	.0	.0	.0	.0	.0	.7	.0	5.1	.0	.0	5.8	.0	88.4
W	.0	2.2	.0	.0	.0	.0	.0	2.2	.0	15.1	.0	.0	5.3	.0	77.3
NW	.6	.0	.0	.0	.0	.0	.0	.6	.0	16.4	.0	.0	9.9	.0	73.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.3	.9	.0	.0	.0	.0	.0	1.2	.0	11.2	.0	.0	6.5	.0	81.1
TOT OBS:	339														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.0	.9	.0	.0	.0	.0	.0	.9	.0	4.5	.0	.0	5.3	.0	88.3
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	.0	.0	10.7	.0	88.0
12015	.0	1.8	.0	.0	.0	.0	.0	1.8	.0	15.3	.9	.0	5.4	.0	76.6
18021	1.6	.0	.0	.0	.0	.0	.0	1.6	.0	23.4	.0	.0	3.1	.0	71.9
TOT PCT	.3	.8	.0	.0	.0	.0	.0	1.1	.0	10.5	.3	.0	6.4	.0	81.7
TOT OBS:	361														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.7	4.9	2.3	.1	.0	.0		8.1	9.2	3.3	5.1	19.2	11.4	10.3	8.5	.0	8.5	
NE	.1	1.7	.1	.0	.0	.0		2.0	5.7	2.6	2.6	.0	2.3	.0	1.2	.0	5.1	
E	1.2	.9	.0	.0	.0	.0		2.1	3.8	3.3	6.4	3.8	.0	.0	.0	4.8	1.2	
SE	.3	1.1	.8	.0	.0	.0		2.2	9.3	4.4	3.8	4.8	.0	.4	.0	4.8	1.2	
S	.2	4.1	2.0	.3	.0	.0		6.6	10.5	10.3	3.8	6.7	5.7	6.3	6.1	.0	8.5	
SW	.7	12.2	7.4	.0	.0	.0		20.3	9.6	22.8	32.1	13.5	17.0	16.3	18.3	25.0	18.3	
W	1.7	21.1	10.4	.0	.0	.0		33.2	9.0	37.5	30.8	26.9	28.4	31.7	35.4	50.0	29.3	
NW	2.4	13.9	8.5	.4	.0	.0		25.2	9.5	14.3	15.4	25.0	35.2	34.9	30.5	15.5	26.8	
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.3							.3	.0	1.5	.0	.0	.0	.0	.0	.0	.0	
TOT OBS	26	206	108	3	0	0	343		9.2	68	39	26	44	63	41	21	41	
TOT PCT	7.6	60.1	31.5	.9	.0	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	2.3	5.5	.3	.0	.0		8.1	9.2	4.0	14.3	9.6	5.6	
NE	1.6	.4	.0	.0	.0		2.0	5.7	2.6	1.4	.5	4.0	
E	1.8	.3	.0	.0	.0		2.1	3.8	4.4	1.4	.0	2.4	
SE	.8	1.1	.3	.0	.0		2.2	9.3	4.2	1.8	.2	2.4	
S	1.2	4.8	.6	.0	.0		6.6	10.5	7.9	6.1	6.3	5.6	
SW	5.7	12.7	1.9	.0	.0		20.3	9.6	26.2	15.7	17.1	20.6	
W	10.9	20.5	1.9	.0	.0		33.2	9.0	35.0	27.9	33.2	36.3	
NW	6.9	16.6	1.7	.0	.0		25.2	9.5	14.7	31.4	33.2	23.0	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	.3						.3	.0	.9	.0	.0	.0	
TOT OBS	108	212	23	0	0	343		9.2	107	70	104	62	
TOT PCT	31.5	61.8	6.7	.0	.0		100.0		100.0	100.0	100.0	100.0	

DECEMBER

PERIOD: (PRIMARY) 1922-1971  
(OVER-ALL) 1888-1971

AREA 0021 BROOME  
16.85 121.4E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00&03	.9	8.4	68.2	22.4	.0	.0	.0	.0	7.8	100.0	107
06&09	.0	7.1	55.7	35.7	1.4	.0	.0	.0	9.9	100.0	70
12&15	.0	5.8	51.0	42.3	1.0	.0	.0	.0	10.2	100.0	104
18&21	.0	8.1	66.1	24.2	1.6	.0	.0	.0	8.9	100.0	62
TOT	1	25	206	108	3	0	0	0	9.2		343
PCT	.3	7.3	60.1	31.5	.9	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	8.3	2.3	.0	.0		1.8
NE	.3	.0	.0	.0		1.0
E	1.1	.0	1.1	.9		4.7
SE	2.3	.3	.3	.3		1.5
S	4.3	3.2	3.2	.0		3.2
SW	8.9	3.2	4.6	.0		2.8
W	22.4	6.9	3.2	3.4		2.5
NH	17.8	.3	.3	1.1		1.0
VAR	.0	.0	.0	.0		.0
CALM	.0	.0	.0	.0		.0
TOT OBS	57	14	11	5	87	2.3
TOT PCT	65.5	16.1	12.6	5.7	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10.6	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.3	
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9	
S	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	9.5	
SW	.0	.0	.0	.0	1.1	1.1	.0	.0	.0	.0	14.4	
W	.0	.0	.0	.0	1.1	2.3	.0	.0	.0	.0	32.5	
NH	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	16.4	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT OBS	0	0	0	0	4	3	0	0	0	1	79	87
TOT PCT	.0	.0	.0	.0	4.6	3.4	.0	.0	.0	1.1	90.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>5000	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>3500	1.1	1.1	1.1	1.1	1.1	1.1	1.1	1.1
>2000	3.4	4.5	4.5	4.5	4.5	4.5	4.5	4.5
>1000	8.0	9.1	9.1	9.1	9.1	9.1	9.1	9.1
>400	8.0	9.1	9.1	9.1	9.1	9.1	9.1	9.1
>300	8.0	9.1	9.1	9.1	9.1	9.1	9.1	9.1
>150	8.0	9.1	9.1	9.1	9.1	9.1	9.1	9.1
>0	8.0	9.1	9.1	9.1	9.1	9.1	9.1	9.1
TOTAL	7	8	8	8	8	8	8	8

TOTAL NUMBER OF OBS: 88

PCT FREQ NH <5/8: 90.9

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	32.6	26.1	15.2	10.9	4.3	2.2	3.3	3.3	2.2	.0	92



PERIOD: (PRIMARY) 1922-1971  
(OVER-ALL) 1889-1971

DECEMBER

AREA 0021 BROOME  
16.85 121.4E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.7	.0	.0	.1	.1	.9	1.8	2.8	.0	.0	6.5	6.5
	TOT %	.7	.0	.0	.1	.1	.9	1.8	2.8	.0	.0	6.5	6.5
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5<10	PCP	.1	.0	.0	.0	.0	.1	.7	.1	.0	.0	1.2	1.2
	NO PCP	4.1	1.6	.7	.7	1.9	12.4	15.9	15.0	.0	.0	52.5	52.5
	TOT %	4.3	1.6	.7	.7	1.9	12.5	16.7	15.2	.0	.0	53.7	53.7
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	3.2	.4	1.1	1.3	4.6	6.9	14.7	7.2	.0	.3	39.8	39.8
	TOT %	3.2	.4	1.1	1.3	4.6	6.9	14.7	7.2	.0	.3	39.8	39.8
TOT OBS													
TOT PCT													
		8.2	2.0	1.8	2.2	6.7	20.4	33.2	25.2	.0	.3	100.0	339

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.3	.3
	4-10	.3	.0	.0	.0	.0	.3	.7	1.6	.0	.0	2.9	2.9
	11-21	.4	.0	.0	.1	.1	.6	1.0	.9	.0	.0	3.2	3.2
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.7	.0	.0	.1	.1	.9	1.8	2.8	.0	.0	6.5	6.5
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5<10	0-3	.7	.1	.3	.0	.0	.6	.9	1.2	.0	.0	3.8	3.8
	4-10	2.2	1.5	.4	.7	.9	7.8	12.1	8.0	.0	.0	33.6	33.6
	11-21	1.2	.0	.0	.0	.7	4.1	3.7	5.6	.0	.0	15.3	15.3
	22+	.1	.0	.0	.0	.3	.0	.0	.4	.0	.0	.9	.9
	TOT %	4.3	1.6	.7	.7	1.9	12.5	16.7	15.2	.0	.0	53.7	53.7
10+	0-3	.0	.0	.6	.3	.2	.1	.8	.7	.0	.3	2.9	2.9
	4-10	2.4	.3	.5	.4	3.2	4.3	8.3	4.5	.0	.0	23.9	23.9
	11-21	.7	.1	.0	.7	1.2	2.6	5.7	2.1	.0	.0	13.0	13.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	3.2	.4	1.1	1.3	4.6	6.9	14.7	7.2	.0	.3	39.8	39.8
TOT OBS													
TOT PCT													
		8.2	2.0	1.8	2.2	6.7	20.4	33.2	25.2	.0	.3	100.0	339

DECEMBER

PERIOD: (PRIMARY) 1922-1971  
(OVER-ALL) 1888-1971

AREA 0021 BROOME  
16.85 121.4E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	11.1	7.4	.0	.0	.0	3.7	22.2	77.8	27
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	24
12015	.0	.0	.0	.0	4.5	4.5	.0	.0	.0	.0	9.1	90.9	22
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	17
TOT	0	0	0	0	4	3	0	0	0	1	8	82	90
PCT	.0	.0	.0	.0	4.4	3.3	.0	.0	.0	1.1	8.9	91.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	5.4	.0	56.8	37.8	111
06009	.0	.0	10.7	.0	45.3	44.0	75
12015	.0	.9	6.3	.0	60.4	32.4	111
18021	.0	.0	3.1	.0	56.3	40.6	64
TOT	0	1	23	0	200	137	361
PCT	.0	.3	6.4	.0	55.4	38.0	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	22.2	77.8	27
06009	.0	.0	.0	.0	100.0	24
12015	.0	.0	.0	10.0	90.0	20
18021	.0	.0	.0	.0	100.0	17
TOT	0	0	0	8	80	88
PCT	.0	.0	.0	9.1	90.9	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.3	.9	.0	.0	.0	4	1.3
85/89	.0	.0	.0	.0	2.2	9.8	8.2	.6	66	20.8
80/84	.0	.0	.0	.4	1.6	12.9	53.6	7.3	241	76.0
75/79	.0	.0	.0	.3	.0	.0	.9	.6	6	1.9
TOTAL	0	0	0	4	15	72	199	27	317	100.0
PCT	.0	.0	.0	1.3	4.7	22.7	62.8	8.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.2	.0	.0	.0	.6	.2	.2	.2	.0	.0
85/89	2.7	.5	.6	.6	1.0	3.4	5.9	5.5	.0	.0
80/84	5.4	1.7	1.3	.6	4.6	17.5	25.6	19.2	.0	.0
75/79	.0	.0	.0	.0	.0	.0	1.7	.2	.0	.0
TOTAL	8.3	2.1	2.0	1.3	6.8	21.1	33.4	25.1	.0	.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	90	89	87	84	80	79	79	83.8	113
06009	92	91	89	84	81	80	80	84.6	74
12015	87	86	85	83	80	79	79	82.7	106
18021	85	84	84	83	80	79	79	82.2	62
TOT	92	89	87	83	80	79	79	83.4	355

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	1.9	6.8	25.2	61.2	4.9	80	103
06009	.0	.0	10.0	38.6	50.0	1.4	79	70
12015	.0	1.9	2.8	13.2	67.0	15.1	84	106
18021	.0	.0	.0	15.0	75.0	10.0	84	60
TOT	0	4	17	76	214	28	82	339

## DECEMBER

PERIOD: (PRIMARY) 1922-1971  
(OVER-ALL) 1888-1971

TABLE 17

AREA 0021 BROOME  
16.85 121.4E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	89 92	TOT	W FOG	WD FOG
7/8	.0	.0	.0	.4	1	.0	.4
6	.0	.4	.0	.0	1	.0	.4
5	.0	.4	.8	.4	4	.0	1.5
4	.0	1.5	.0	.0	4	.0	1.5
3	.0	.4	1.1	.8	6	.0	2.3
2	.4	3.0	2.3	.0	15	.0	5.7
1	.8	5.7	4.9	.0	30	.0	11.4
0	1.1	13.3	4.6	.0	50	.0	19.0
-1	2.3	16.7	2.3	.0	56	.4	20.9
-2	2.3	14.4	2.3	.0	50	.0	19.0
-3	1.5	8.0	.0	.0	25	.0	9.5
-4	1.1	4.6	.0	.0	15	.0	5.7
-5	.0	.8	.4	.0	3	.0	1.1
-6	.0	.8	.0	.0	2	.0	.8
-7/-8	.0	.4	.0	.0	1	.0	.4
TOTAL	25	185	49	4	263	1	262
PCT	9.5	70.3	18.6	1.5	100.0	.4	99.6

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.4	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0
1-2	.0	5.4	3.4	.0	.0	.0	8.8	.0	.0	.3	.0	.0	.0	.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	6.8	3.4	.0	.0	.0	10.1	.0	.0	.3	.0	.0	.0	.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	.0	.0	.0	.0	1.0	.0	.3	.0	.0	.0	.0	.3
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.7	.3	.0	.0	.0	1.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7	.0	.0	.0	2.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.0	.0	.0	.0	.0	1.0	.0	1.0	3.0	.0	.0	.0	4.1

PERIOD: (OVER-ALL) 1963-1971

DECEMBER

AREA 0021 BROOME  
16.85 121.4E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	1.4	.0	.0	.0	.0		1.4	.0	1.4	.0	.0	.0	.0		1.4
1-2	.0	6.1	1.0	.0	.0	.0		7.1	.0	8.8	1.7	.0	.0	.0		10.5
3-4	.0	.0	1.0	.0	.0	.0		1.0	.0	1.4	3.0	.0	.0	.0		4.4
5-6	.0	.0	.0	.0	.0	.0		.0	.0	1.4	1.0	.0	.0	.0		2.4
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	.0	7.4	2.0	.0	.0	.0		9.5	.0	12.8	5.7	.0	.0	.0		18.6

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	3.7	.0	.0	.0	.0		3.7	1.4	1.7	.0	.0	.0	.0		3.0	
1-2	.0	16.2	4.4	.0	.0	.0		22.6	1.4	8.8	3.0	.0	.0	.0		19.2	
3-4	.0	.0	2.4	.0	.0	.0		2.4	.0	.0	3.0	.0	.0	.0		3.0	
5-6	.0	2.7	5.7	.0	.0	.0		8.4	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	22.6	14.5	.0	.0	.0		37.2	2.7	10.5	6.1	.0	.0	.0		19.3	100.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	1.3	10.7	.0	.0	.0	.0	12.0	DBS
1-2	2.7	45.3	16.0	.0	.0	.0	64.0	
3-4	.0	1.3	9.3	.0	.0	.0	10.7	
5-6	.0	4.0	9.3	.0	.0	.0	13.3	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	4.0	61.3	34.7	.0	.0	.0	100.0	75

PERIOD: (OVER-ALL) 1965-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	9.3	52.0	10.7	4.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	58	2
6-7	.0	.0	6.7	4.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	4
8-9	.0	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	8
10-11	.0	2.7	.0	1.3	.0	1.3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	5
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
13-14	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
14-15	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	5
TOTAL	7	41	13	9	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	75	3
PCT	9.3	54.7	17.3	12.0	1.3	2.7	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1973  
(OVER-ALL) 1856-1973

ANNUAL

AREA 0021 BROOME  
16.75 121.3E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	2.5	1.7	.7	.0	.0	.0	.0	4.5	1.4	4.2	.9	.0	11.9	.0	77.1
NE	4.3	2.2	.3	.0	.0	.0	.0	6.7	.4	4.2	2.0	.0	4.0	.0	83.2
E	1.3	2.2	.4	.0	.0	.0	.0	3.7	.9	3.6	1.0	.0	3.4	.0	87.5
SE	1.1	2.6	.2	.0	.0	.0	.0	3.9	.6	2.8	.8	.0	3.4	.0	88.5
S	1.3	1.6	.1	.0	.0	.0	.0	3.1	.3	3.1	.7	.0	3.2	.0	90.1
SW	.8	1.4	.0	.0	.0	.0	.0	2.1	.0	4.4	2.9	.0	4.0	.0	86.8
W	.5	1.1	.1	.0	.0	.0	.0	1.7	.1	7.3	3.2	.0	4.6	.0	83.2
NW	1.1	2.2	.3	.0	.0	.0	.0	3.3	.3	7.1	1.9	.0	7.3	.0	80.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.6	1.0	.4	.0	.0	.0	.0	1.9	.8	5.8	.3	.0	7.1	.0	84.7
TOT PCT	1.3	1.5	.2	.0	.0	.0	.0	3.0	.4	5.0	1.2	.0	4.9	.0	85.6
TOT OBS:	5965														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00603	1.3	1.7	.1	.0	.0	.0	.0	3.2	.4	1.7	1.7	.0	6.5	.0	86.7
06009	.6	1.6	.1	.0	.0	.0	.0	2.3	.2	.3	1.2	.0	6.9	.0	89.1
12015	1.5	1.9	.2	.0	.0	.0	.0	3.5	.4	7.5	1.5	.0	4.1	.0	83.3
18021	2.2	1.1	.3	.0	.0	.0	.0	3.5	.6	11.3	1.0	.0	2.2	.0	82.0
TOT PCT	1.4	1.6	.2	.0	.0	.0	.0	3.2	.4	5.0	1.4	.0	5.0	.0	85.3
TOT OBS:	6305														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+				00	03	06	09	12	15	18	21
N	.9	3.2	1.3	.3	.1	.0		5.8	8.3	3.8	5.2	6.0	7.4	7.8	5.1	5.2	5.2
NE	.7	3.1	1.5	.3	*	.0		5.6	8.4	5.9	5.6	6.0	5.9	5.7	5.9	4.1	5.2
E	1.0	6.2	4.1	.7	*	.0		12.0	9.5	15.3	16.0	15.7	10.9	9.1	8.1	11.2	10.0
SE	1.3	8.3	5.9	1.2	*	.0		16.2	9.8	20.2	21.8	16.2	14.0	11.5	15.4	11.8	17.5
S	1.2	7.6	2.1	.2	*	.0		11.1	8.3	14.0	11.6	9.1	9.6	8.8	10.8	10.7	13.0
SW	1.6	11.1	4.4	.1	*	.0		17.4	8.2	17.6	17.8	13.3	17.0	18.0	19.7	16.3	18.1
W	1.4	10.9	5.1	.3	*	*		17.7	7.9	13.7	13.2	17.3	19.3	20.4	20.2	21.8	18.7
NW	1.0	5.6	2.8	.4	.1	.0		9.7	8.3	5.7	6.5	9.9	13.4	13.2	10.8	8.9	9.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.4							4.4	.0	3.8	2.3	6.6	2.6	5.7	4.1	9.9	2.7
TOT OBS							6090		9.0	1187	766	465	715	1169	617	500	671
TOT PCT	13.5	55.9	26.7	3.5	.3	*		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	2.8	2.2	.5	.2	.0		5.8	8.3	4.4	6.8	6.9	5.3	
NE	2.4	2.5	.6	.1	.0		5.6	8.4	5.7	5.9	5.7	4.7	
E	3.9	5.7	2.1	.2	.0		12.0	9.5	15.6	12.7	8.7	10.4	
SE	5.3	7.8	2.8	.3	.0		16.2	9.8	20.8	14.9	12.8	15.2	
S	4.7	5.9	.6	*	.0		11.1	8.3	13.2	9.3	9.5	12.1	
SW	6.6	9.8	1.0	*	*		17.4	8.2	17.6	15.6	18.5	17.3	
W	6.0	10.0	1.5	.1	*		17.7	7.9	13.5	18.5	20.4	19.8	
NW	3.5	5.1	1.0	.2	.0		9.7	8.3	6.1	12.0	12.3	9.4	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	4.4						4.4	.0	3.2	4.2	5.1	5.8	
TOT OBS						6090		9.0	1953	1180	1786	1171	
TOT PCT	39.6	49.1	10.1	1.1	*		100.0		100.0	100.0	100.0	100.0	



PERIOD: (PRIMARY) 1922-1973  
(OVER-ALL) 1856-1973

ANNUAL

AREA 0021 BROOME  
16.75 121.3E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	3.2	9.1	56.4	26.8	4.0	.4	.1	9.2	100.0	1953	
06009	4.2	8.6	56.1	27.7	3.1	.3	.0	9.2	100.0	1180	
12015	5.1	9.0	56.2	26.7	2.9	.1	.0	8.6	100.0	1786	
18021	5.8	9.7	54.6	25.6	4.0	.3	.0	8.9	100.0	1171	
TOT								9.0		6090	
PCT	4.4	9.1	55.9	26.7	3.5	.3	*	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.8	1.0	.9	.9		2.2
NE	3.4	.4	1.0	1.0		2.6
E	9.3	1.2	1.1	.9		2.5
SE	9.8	1.2	1.6	1.2		2.4
S	8.0	1.3	1.2	.8		2.5
SW	10.6	2.0	2.4	.5		1.9
W	11.6	3.7	2.1	1.3		2.0
NW	5.3	1.2	1.4	.8		1.7
VAR	.0	.0	.0	.0		.0
CALM	5.3	.6	.7	.7		1.8
TOT OBS					1887	2.1
TOT PCT	67.0	12.5	12.4	8.1	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	499	999	1999	3499	4999	6499	7999		ANY HGT	OBS
.0	.0	.0	.5	.4	.4	.0	.0	.0	.0	5.3	
.0	.0	.0	.3	.7	.2	.1	.0	.0	.0	4.5	
.0	.0	*	.1	.3	.5	*	.0	.0	.2	11.4	
.0	.0	.1	.3	.8	.2	.2	.2	.1	.1	11.8	
.0	.0	.1	.3	.2	.4	.3	.0	*	.0	9.9	
.0	.0	.0	.1	.6	.6	.2	.0	*	.1	13.9	
.0	.0	.0	.2	.9	.6	.1	.0	.1	.1	16.7	
.0	.0	.0	*	.7	.4	.1	.0	.0	.1	7.4	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.1	.2	.1	.2	.1	.1	.0	.2	5.4	
.0	.0	.3	1.9	4.8	3.5	.9	.2	.2	.8	87.3	1887
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	= OR >10	= OR >5	= OR >2	= OR >1	= OR >1/2	= OR >1/4	= OR >50YD	= OR >0
= OR >6500	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
= OR >4000	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
= OR >3500	2.1	2.1	2.1	2.1	2.1	2.1	2.1	2.1
= OR >2000	5.0	5.7	5.7	5.7	5.7	5.7	5.7	5.7
= OR >1000	8.7	10.1	10.3	10.4	10.4	10.4	10.4	10.4
= OR >800	9.7	11.8	12.1	12.3	12.4	12.4	12.4	12.4
= OR >300	9.8	12.0	12.4	12.6	12.7	12.7	12.7	12.7
= OR >150	9.8	12.0	12.4	12.6	12.7	12.7	12.7	12.7
= OR >0	9.8	12.0	12.4	12.6	12.7	12.7	12.7	12.7

TOTAL NUMBER OF OBS: 1894

PCT FREQ NH <5/8: 87.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
44.6	20.3	10.7	6.7	4.0	2.3	3.0	1.9	6.4	.0	2005

PERIOD: (PRIMARY) 1922-1973  
(OVER-ALL) 1856-1973

ANNUAL

AREA 0021 BROOME  
16.75 121.3E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL DBS
<1/2	PCP	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
	NO PCP	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	*	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.1
1/2<1	PCP	.0	.0	.0	.0	*	.0	.0	.0	.0	.0	*	
	NO PCP	.0	*	.0	.0	*	*	*	.0	.0	.0	*	.1
	TOT %	.0	*	.0	.0	*	*	*	.0	.0	.0	*	.1
1<2	PCP	*	*	*	.1	.0	*	.0	*	.0	*	*	.2
	NO PCP	.6	.2	.2	.4	.4	.9	1.0	1.0	.0	.2	*	4.8
	TOT %	.6	.2	.2	.5	.4	.9	1.0	1.1	.0	.2	*	5.0
2<5	PCP	.1	.1	*	.1	*	.0	*	*	.0	.0	*	.4
	NO PCP	.0	*	.1	*	.0	*	*	*	.0	.0	*	.2
	TOT %	.1	.1	.1	.1	*	*	.1	.1	.0	*	*	.6
5<10	PCP	.2	.4	.3	.4	.2	.3	.2	.2	.0	*	2.2	
	NO PCP	2.5	2.5	5.9	9.1	5.5	8.4	8.5	4.8	.0	1.7	48.8	
	TOT %	2.7	2.9	6.2	9.5	5.6	8.7	8.7	4.9	.0	1.7	51.0	
10+	PCP	*	*	*	*	*	.1	*	*	.0	*	.2	
	NO PCP	2.4	2.3	5.2	6.1	5.1	7.7	8.0	3.7	.0	2.4	42.9	
	TOT %	2.4	2.3	5.2	6.2	5.1	7.7	8.0	3.8	.0	2.5	43.2	
TOT DBS													
TOT PCT													
		5.9	5.6	11.8	16.2	11.2	17.4	17.8	9.8	.0	4.4	100.0	5965

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL DBS
<1/2	0-3	*	.0	.0	.0	.0	.0	.0	.0	.0	*	.1	
	4-10	*	*	*	.0	.0	.0	.0	.0	.0	*	.1	
	11-21	.0	*	*	.0	.0	.0	.0	.0	.0	*	*	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.0	
	TOT %	*	*	*	.0	.0	.0	.0	.0	.0	*	.1	
1/2<1	0-3	.0	.0	.0	.0	.0	*	.0	.0	.0	.0	*	
	4-10	.0	*	.0	.0	*	*	*	.0	.0	.0	*	.1
	11-21	.0	.0	.0	.0	*	*	*	.0	.0	.0	*	
	22+	.0	.0	.0	.0	*	*	.0	.0	.0	.0	*	
	TOT %	.0	*	.0	.0	*	*	*	.0	.0	.0	*	.1
1<2	0-3	.1	*	*	*	*	.1	.1	.1	.0	.2	.7	
	4-10	.4	.1	.1	.2	.2	.5	.5	.5	.0	2.5		
	11-21	.1	*	.1	.1	.1	.3	.4	.3	.0	1.5		
	22+	.1	*	*	.1	.1	*	*	.1	.0	.4		
	TOT %	.6	.2	.2	.5	.4	.9	1.0	1.1	.0	.2	5.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	*	
	4-10	*	*	.1	*	.0	*	*	.0	.0	.0	.2	
	11-21	.0	.1	*	*	*	*	*	*	.0	.0	.2	
	22+	*	*	*	*	.0	*	*	*	.0	.0	.2	
	TOT %	.1	.1	.1	.1	*	.1	.1	.1	.0	*	.6	
5<10	0-3	.5	.3	.4	.8	.6	.9	.7	.5	.0	1.7	6.4	
	4-10	1.4	1.5	3.4	4.5	3.8	5.0	5.4	2.6	.0	28.2		
	11-21	.6	.8	2.1	3.3	1.1	2.2	2.3	1.7	.0	14.1		
	22+	.2	.2	.4	.8	.1	.1	.3	.2	.0	2.3		
	TOT %	2.7	2.9	6.3	9.5	5.6	8.7	8.7	4.9	.0	1.7	51.1	
10+	0-3	.4	.3	.5	.4	.5	.7	.5	.3	.0	2.5	6.1	
	4-10	1.4	1.5	2.5	3.4	3.6	5.0	5.0	2.6	.0	25.0		
	11-21	.5	.5	1.9	2.1	.9	2.0	2.4	.8	.0	11.1		
	22+	.1	*	.3	.3	*	*	*	*	.0	.8		
	TOT %	2.4	2.3	5.2	6.1	5.1	7.7	8.0	3.7	.0	2.5	43.0	
TOT DBS													
TOT PCT													
		5.9	5.6	11.9	16.2	11.1	17.4	17.8	9.8	.0	4.4	100.0	5996

AD-A044 425

NAVAL WEATHER SERVICE DETACHMENT ASHEVILLE N C F/G 4/2  
SUMMARY OF SYNOPTIC METEOROLOGICAL OBSERVATIONS (SSMO). AUSTRAL--ETC(U)  
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PERIOD: (PRIMARY) 1922-1973  
(OVER-ALL) 1856-1973

ANNUAL

AREA 0021 BROOME  
16.75 121.3E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.4	2.2	6.7	5.5	1.4	.2	.0	.7	17.2	82.8	503
06009	.0	.0	.4	2.4	3.0	2.7	.3	.2	.2	.9	10.2	89.8	471
12015	.0	.0	.0	1.9	4.0	2.4	.2	.0	.2	.9	9.5	90.5	500
18021	.0	.0	.2	1.1	4.5	2.8	1.7	.4	.2	.6	11.4	88.6	501
TOT PCT	.0	.0	.3	1.9	4.7	3.4	.9	.2	.2	.8	12.3	87.7	1975 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.2	.1	6.3	.6	55.0	37.8	2041
06009	.1	.0	6.6	.4	45.2	47.6	1214
12015	.2	.4	5.1	.6	56.1	37.7	1857
18021	.1	.2	2.0	.7	48.9	48.2	1224
TOT PCT	.2	.2	5.2	.6	52.2	41.7	6336 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.4	3.2	14.1	82.6	485
06009	.0	.4	3.6	7.3	89.2	461
12015	.0	.2	3.0	7.6	89.4	471
18021	.0	.5	2.2	10.2	87.6	481
TOT PCT	.0	.4	3.0	10.1	86.9	1898 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	*	.2	.3	.2	*	.0	.8	
85/89	.0	.1	.4	1.0	2.7	7.2	6.0	.0	18.0	
80/84	.0	.1	.7	2.3	4.9	10.0	19.9	4.5	42.4	
75/79	.0	.2	1.4	4.0	4.2	8.4	5.9	3.1	27.2	
70/74	.0	*	.8	1.9	2.5	1.8	1.7	1.3	10.0	
65/69	.0	*	.2	.3	.5	.3	.1	.1	1.5	
60/64	.0	.0	.0	*	*	*	.0	.0	.1	
TOTAL PCT	.0	.5	3.4	9.8	15.2	28.0	33.6	9.5	5001 100.0	

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.1	.1	.1	.1	.2	.1	.1	.1	.0	*
85/89	1.3	.9	1.6	1.7	1.5	3.5	4.2	2.3	.0	1.0
80/84	3.1	2.7	4.1	4.8	3.6	7.4	9.3	5.9	.0	1.5
75/79	1.0	1.3	3.6	6.1	4.1	5.2	3.7	1.1	.0	1.2
70/74	.3	.4	1.9	3.3	1.4	1.2	.6	.4	.0	.4
65/69	.0	*	.5	.7	.1	.1	*	*	.0	.1
60/64	.0	.0	.0	*	*	.0	.0	.0	.0	.0
TOTAL	5.7	5.4	11.8	16.8	10.8	17.6	17.9	9.8	.0	4.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	93	87	85	81	78	73	63	80.0	2004
06009	94	88	87	82	78	74	63	81.8	1170
12015	91	85	84	80	76	74	66	79.9	1824
18021	90	83	83	80	74	71	60	78.7	1181
TOT	94	87	85	81	78	73	60	80.1	6179

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	14.9	17.6	39.4	31.4	6.7	73	1699		
06009	.0	17.2	20.2	34.2	24.9	3.5	71	1003		
12015	.0	11.3	12.2	25.7	37.7	13.1	76	1564		
18021	.0	10.7	11.3	23.9	39.3	14.7	77	1025		
TOT	0	799	872	1476	1664	480	74	5291		



PERIOD: (PRIMARY) 1922-1973  
(OVER-ALL) 1856-1973

ANNUAL

TABLE 17

AREA 0021 8900E  
16.75 121.3E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	61 64	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
14/16	.0	.0	.0	.0	.0	*	*	.0	.0	2	.0	.1
11/13	.0	.0	.0	.0	.1	*	.1	.1	.0	9	.0	.3
9/10	.0	.0	.0	.0	.1	.1	.1	.0	*	11	.0	.3
7/8	.0	.0	*	.2	.2	.3	.4	.1	*	47	.0	1.2
6	.0	.0	*	.2	.4	.2	.3	.1	.0	47	.0	1.2
5	.0	.0	*	.2	.4	.5	.5	.2	.0	56	*	1.7
4	.0	*	.1	.1	.9	.8	.8	.3	*	122	.0	3.1
3	.0	.0	.1	.3	.8	1.2	1.4	.5	.0	168	*	4.4
2	.0	.0	.2	.9	1.4	2.2	2.3	.3	.0	278	.2	7.1
1	.0	.0	.4	1.6	2.9	4.3	3.5	.1	.0	488	.4	12.5
0	.0	.0	.4	2.1	4.0	6.6	3.8	*	.0	642	.8	16.2
-1	.0	.1	.4	2.2	3.7	6.5	3.0	.1	.0	601	.5	15.6
-2	.0	*	.4	2.4	3.0	6.5	1.1	.0	.0	516	.2	13.2
-3	.0	*	.7	1.5	2.7	3.7	.6	.0	.0	364	.1	9.2
-4	.0	.1	.6	1.4	1.6	2.0	.2	.0	.0	236	*	5.8
-5	.0	*	.3	.8	.7	.6	.1	.0	.0	100	.0	2.6
-6	.0	.1	.3	.5	.4	.3	*	.0	.0	65	.0	1.6
-7/-8	.0	.2	.5	.2	.4	.2	.0	.0	.0	38	.0	1.4
-9/-10	*	.1	.1	.1	*	.0	.0	.0	.0	18	.0	.4
-11/-13	.0	*	*	.1	.0	.0	.0	.0	.0	4	.0	.1
TOTAL										3842		
PCT	*	.7	4.6	14.9	23.8	36.1	18.2	1.7	.1	100.0	2.2	97.8

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	NE	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	1.2	.0	.0	.0	.0	1.7	.2	.4	.0	.0	.0	.0	.0	.7
1-2	.2	1.8	.5	.0	.0	.0	2.5	.1	1.9	.2	.0	.0	.0	.0	2.2
3-4	.0	.6	.6	.0	.0	.0	1.3	.0	1.0	1.0	.0	.0	.0	.0	1.9
5-6	.0	.1	.1	.1	.0	.0	.2	.0	.1	.2	.1	.0	.0	.0	.4
7	.0	.0	.0	.2	.0	.0	.2	.0	.0	.2	*	.0	.0	.0	.2
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.1
10-11	.0	.0	.0	.1	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.1	.0	.1	.0	*	.0	.0	.1	.0	.0	.1
13-16	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	3.8	1.3	.5	.1	.0	6.3	.3	3.4	1.6	.2	.1	.0	.0	5.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	SE	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.5	.7	.0	.0	.0	.0	1.2	.3	1.6	.0	.0	.0	.0	.0	1.9
1-2	.2	3.1	.9	.0	.0	.0	4.2	.1	5.1	.9	.0	.0	.0	.0	6.1
3-4	.1	1.4	2.1	.1	.0	.0	3.6	.0	1.4	2.0	*	.0	.0	.0	3.4
5-6	.0	.1	1.8	.3	.0	.0	2.3	.0	.2	1.6	.4	.0	.0	.0	2.3
7	.0	.0	.6	.3	.0	.0	.9	.0	.0	.6	.1	.0	.0	.0	.7
8-9	.0	.0	.0	.1	.0	.0	.1	.0	.0	.3	.2	.0	.0	.0	.5
10-11	.0	.0	.0	.1	.1	.0	.2	.0	.0	.0	.2	.0	.0	.0	.2
12	.0	.1	.0	.1	.0	.0	.1	.0	.1	.0	.0	.0	.0	.0	.1
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	5.5	5.4	1.0	.1	.0	12.6	.4	8.4	5.4	1.0	.0	.0	.0	15.2

PERIOD: (OVER-ALL) 1963-1973

ANNUAL

AREA 0021 BROOME

TABLE 18 (CONT)

16.75 121.3E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S								SW							
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.8	1.4	.1	.0	.0	.0	2.3	.7	1.5	.0	.0	.0	.0	2.2	
1-2	.1	4.5	.8	.0	.0	.0	5.5	.2	7.0	1.3	.0	.0	.0	8.4	
3-4	.0	1.6	1.1	.1	.0	.0	2.7	.0	1.2	1.8	.0	.0	.0	3.0	
5-6	.0	.1	.2	.1	.0	.0	.4	.0	.6	1.3	.0	.0	.0	1.9	
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.1	.0	.0	.1	
8-9	.0	.0	.0	*	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.0	7.5	2.3	.2	.0	.0	11.0	.8	10.4	4.4	.1	.0	.0	15.6	

W								NW								TOTAL PCT
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	.5	1.5	.0	.0	.0	.0	2.0	.8	1.3	.1	.0	.0	.0	2.1		
1-2	.2	5.8	1.4	.0	.0	.0	8.4	.2	3.5	.5	.0	.0	.0	4.2		
3-4	.0	1.5	2.7	.0	.0	.0	4.2	.0	.9	.8	.1	.0	.0	1.7		
5-6	.0	.5	2.0	.2	.0	.0	2.7	.0	.5	*	.0	.0	.0	.6		
7	.0	.0	.5	.1	.0	.0	.5	.0	.0	*	.0	.0	.0	*		
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.0	.1		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1	.0	.0	.1		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	.7	10.3	6.5	.2	.0	.0	17.8	.9	5.6	2.1	.2	.0	.0	8.8	92.9	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	11.7	9.6	.2	.0	.0	.0	21.5	
1-2	1.3	33.6	6.4	.0	.0	.0	41.3	
3-4	.1	9.4	12.0	.3	.0	.0	21.8	
5-6	.0	1.7	7.8	1.2	.0	.0	10.7	
7	.0	.0	2.0	.8	.0	.0	2.8	
8-9	.0	.0	.0	.6	.0	.0	.9	
10-11	.0	.0	.0	.3	.1	.0	.4	
12	.0	.1	.0	.1	.2	.0	.4	
13-16	.0	.0	.1	.0	.0	.0	.1	
17-19	.0	.0	.0	.1	.0	.0	.1	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	13.1	54.5	28.9	3.3	.3	.0	100.0	1308

PERIOD: (OVER-ALL) 1965-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
6-7	8.1	28.4	14.7	5.4	1.0	.5	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	771	2
8-9	.2	1.5	6.9	6.4	2.6	.5	.6	.3	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	263	5
10-11	.0	.4	1.0	1.9	1.9	.8	.2	.1	.4	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	98	7
12-13	.0	.9	1.4	1.4	.7	.5	.1	.1	.3	.0	.2	.1	.0	.0	.0	.0	.0	.0	.0	78	6
14-15	.0	.0	.4	.1	.0	.1	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	11	8
16-17	.0	.0	.0	.2	.0	.1	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	7
18-19	7.3	.4	.4	.4	.2	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	127	1
TOTAL																				1347	3
PCT	15.6	31.7	24.8	15.9	6.5	2.3	1.0	.7	.8	.3	.4	.1	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1922-1973  
(OVER-ALL) 1856-1973

AREA 0021 BROOME  
16.75 121.3E

TABLE 20

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.8	.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	.1
89/90	2.5	3.3	4.5	.0	.0	.0	.0	.0	.0	.0	.0	1.5	36	.9
87/88	12.8	19.3	18.2	10.2	1.0	1.7	.0	.0	.0	.0	5.1	9.3	240	6.1
85/86	41.1	34.0	38.7	35.4	12.1	1.7	.0	.0	.0	4.1	17.6	28.7	677	17.1
83/84	28.5	25.2	25.0	34.2	28.0	6.6	.5	.6	4.1	14.8	27.5	35.1	744	18.8
81/82	12.1	8.8	6.8	12.0	22.4	11.3	4.7	3.9	5.1	29.6	32.5	16.8	535	13.5
79/80	1.7	6.9	3.8	2.8	16.0	24.3	18.9	24.3	20.4	27.8	12.5	6.7	554	14.0
77/78	.3	2.3	.7	3.4	7.2	22.4	17.6	19.1	33.8	15.2	3.1	1.5	427	10.8
75/76	.0	.0	1.4	1.2	4.5	16.6	26.2	23.0	21.7	6.7	1.6	.0	358	9.1
73/74	.0	.0	1.0	.5	4.9	8.3	14.7	14.9	8.6	1.9	.0	.0	197	5.0
71/72	.0	.0	.0	.3	3.7	5.0	9.8	7.4	4.1	.0	.0	.0	113	2.9
69/70	.0	.0	.0	.0	.0	1.1	6.4	2.3	1.6	.0	.0	.0	42	1.1
67/68	.0	.0	.0	.0	.0	1.1	1.2	2.9	.6	.0	.0	.0	20	.5
65/66	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	3	.1
63/64	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	.1
61/62	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	358	306	292	325	486	362	408	309	314	270	255	268	3953	100.0
MEAN	84.7	84.6	84.7	83.9	81.0	78.0	75.7	76.0	77.2	80.2	82.5	83.9	81.0	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1007	1006	1006	1003	1005	1005	1007	1004	1005	485
FEB	1008	1008	1006	1006	1007	1007	1006	1007	1007	397
MAR	1009	1009	1008	1007	1009	1009	1007	1008	1009	433
APR	1012	1010	1011	1009	1011	1011	1011	1010	1011	577
MAY	1014	1012	1012	1011	1013	1013	1013	1013	1013	632
JUN	1015	1014	1013	1013	1015	1014	1015	1014	1014	550
JUL	1016	1015	1015	1014	1016	1015	1015	1014	1015	588
AUG	1015	1014	1014	1012	1015	1014	1014	1013	1014	550
SEP	1015	1014	1013	1012	1014	1013	1013	1012	1013	547
OCT	1013	1011	1011	1010	1012	1011	1011	1011	1011	416
NOV	1011	1010	1009	1008	1009	1009	1009	1008	1009	425
DEC	1009	1007	1007	1005	1007	1007	1006	1006	1007	362
ANN	1012	1011	1010	1009	1011	1011	1011	1010	1011	5962
OBS	1157	733	461	702	1121	608	498	682		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	993	995	999	1003	1006	1008	1011	1014	1015
FEB	996	998	1001	1005	1007	1009	1012	1014	1015
MAR	995	998	1003	1007	1009	1010	1012	1014	1015
APR	1002	1004	1007	1009	1011	1012	1014	1015	1017
MAY	1007	1008	1009	1011	1013	1014	1016	1018	1019
JUN	1008	1009	1010	1013	1014	1016	1018	1019	1020
JUL	1008	1010	1012	1014	1015	1017	1019	1020	1021
AUG	1009	1009	1011	1013	1014	1015	1017	1018	1019
SEP	1008	1009	1010	1012	1013	1015	1017	1018	1021
OCT	1005	1006	1008	1010	1012	1013	1015	1016	1020
NOV	1004	1005	1006	1008	1009	1010	1013	1015	1019
DEC	1000	1001	1003	1005	1007	1008	1010	1011	1013

PERIOD: (PRIMARY) 1926-1973  
(OVER-ALL) 1880-1973

JANUARY

AREA 0022 CAPE TALBOT  
13.15 126.7E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG W/ PCPN	FGG W/ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	3.3	9.0	3.3	.0	.0	.0	.0	15.6	.0	11.5	.0	.0	.0	.0	73.0
NE	10.9	8.7	4.3	.0	.0	.0	.0	23.9	.0	4.3	.0	.0	4.3	.0	71.7
E	24.7	10.1	.0	.0	.0	.0	.0	34.8	.0	6.7	.0	.0	3.4	.0	55.1
SE	30.2	5.7	.0	.0	.0	.0	.0	35.8	.0	3.8	.0	.0	1.9	.0	58.5
S	19.0	13.8	.0	.0	.0	.0	.0	32.8	.0	6.9	.0	.0	.0	.0	50.3
SW	3.8	2.6	.0	.0	.0	.0	.0	6.4	.0	9.0	.0	.0	.0	.0	84.6
W	4.7	.5	.0	.0	.0	.0	.0	5.2	2.1	7.8	5.2	.0	1.0	.0	79.7
NW	7.5	1.7	.0	.0	.0	.0	.0	9.2	.0	15.0	.0	.0	.0	.0	75.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.8	.0	.0	.0	.0	.0	.0	4.8	.0	.0	.0	.0	.0	.0	95.2
TOT PCT	8.6	4.0	.7	.0	.0	.0	.0	13.2	.7	8.3	1.7	.0	1.0	.0	75.9
TOT OBS:	303														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	10.6	5.9	1.2	.0	.0	.0	.0	17.6	.0	1.2	2.4	.0	.0	.0	78.8
06009	6.3	.0	.0	.0	.0	.0	.0	6.3	.0	1.6	1.6	.0	.0	.0	90.5
12015	8.8	3.9	1.0	.0	.0	.0	.0	13.7	1.0	10.8	1.0	.0	2.0	.0	72.5
18021	7.8	6.3	.0	.0	.0	.0	.0	14.1	1.6	18.8	1.6	.0	1.6	.0	64.1
TOT PCT	8.6	4.1	.6	.0	.0	.0	.0	13.4	.6	8.0	1.6	.0	1.0	.0	76.1
TOT OBS:	314														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	1.7	5.8	2.4	.2	.0	.0		10.3	8.7		6.9	13.6	10.9	15.0	12.7	13.4	5.7	4.7
NE	.3	4.4	2.9	.3	.0	.0		8.0	10.7		3.7	12.1	7.8	13.3	7.0	14.3	4.2	14.1
E	.5	4.4	2.4	.3	.0	.0		7.6	8.7		10.6	9.1	5.2	13.3	4.0	7.1	5.2	20.3
SE	.6	2.3	1.3	.0	.0	.0		4.2	8.1		7.9	4.5	2.1	3.3	2.0	5.4	5.2	3.1
S	.5	2.7	1.4	.0	.0	.0		4.6	8.4		6.5	4.5	3.1	6.7	3.7	7.1	3.6	3.1
SW	1.2	7.5	4.3	.0	.0	.0		12.9	8.9		18.1	13.6	17.7	3.3	13.0	5.4	12.5	3.1
W	2.3	14.8	14.0	.3	.0	.0		31.5	10.4		31.9	27.3	24.5	23.3	39.7	24.1	40.1	15.5
NW	.8	8.5	3.5	1.3	.0	.0		14.1	9.9		8.8	9.1	14.1	8.3	14.0	19.6	19.3	23.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.9							6.9	.0		5.6	6.1	14.6	13.3	4.0	3.6	4.2	12.5
TOT OBS	47	160	102	8	0	0	317		8.9		54	33	48	15	75	28	48	15
TOT PCT	14.8	50.5	32.2	2.5	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	3.9	5.7	.7	.0	.0		10.3	8.7	9.5	11.9	12.9	5.5
NE	1.2	5.8	.9	.0	.0		8.0	10.7	6.9	9.1	9.0	6.6
E	3.7	3.4	.5	.0	.0		7.6	8.7	10.1	7.1	4.9	9.0
SE	2.7	.7	.8	.0	.0		4.2	8.1	6.6	2.4	2.9	4.7
S	1.9	2.7	.0	.0	.0		4.6	8.4	5.7	4.0	4.6	3.5
SW	3.9	8.7	.3	.0	.0		12.9	8.9	18.4	14.3	10.9	10.2
W	8.0	19.6	3.9	.0	.0		31.5	10.4	30.2	24.2	35.4	34.0
NW	5.4	7.1	1.7	.0	.0		14.1	9.9	8.9	12.7	15.5	20.3
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	6.9						6.9	.0	5.7	14.3	3.9	6.3
TOT OBS	119	170	28	0	0	317		8.9	87	63	103	64
TOT PCT	37.5	53.6	8.8	.0	.0		100.0		100.0	100.0	100.0	100.0

PERIOD: (PRIMARY) 1926-1973  
(OVER-ALL) 1880-1973

JANUARY

AREA 0022 CAPE TALROT  
13.15 126.7E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	5.7	6.9	60.9	25.3	1.1	.0	.0	.0	8.5	100.0	87
06009	14.3	7.9	44.4	30.2	3.2	.0	.0	.0	8.2	100.0	63
12015	3.9	7.8	51.5	35.0	1.9	.0	.0	.0	9.3	100.0	103
18021	6.3	9.4	40.6	39.1	4.7	.0	.0	.0	9.8	100.0	64
TOT	22	25	160	102	8	0	0	0	8.9		317
PCT	6.9	7.9	50.5	32.2	2.5	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	.0	5.0	4.0	1.8	5.1	
NE	.7	.7	2.5	2.2	5.7	
E	.0	1.4	.5	.7	4.9	
SE	.7	1.6	.7	.7	4.7	
S	.5	1.1	.0	1.3	5.0	
SW	3.4	2.3	5.4	4.0	5.0	
W	6.8	7.7	13.5	7.0	5.0	
NW	5.0	3.8	5.8	3.2	4.5	
VAR	.0	.0	.0	.0	.0	
CALM	2.2	1.4	.7	1.4	3.8	
TOT OBS	27	35	46	31	139	4.9
TOT PCT	19.4	25.2	33.1	22.3	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.5	.0	.0	1.4	.0	.0	.0	.0	.0	.0	8.8	
NE	.0	.0	.0	1.4	.7	.0	.0	.0	.0	.2	3.8	
E	.0	.0	.0	.0	.7	.0	.0	.0	.0	.5	1.4	
SE	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	2.3	
S	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	1.6	
SW	.0	.0	.0	.0	3.2	.2	.0	.0	.0	.4	11.3	
W	.0	.0	.7	.0	1.3	2.7	.7	.0	.0	3.1	26.6	
NW	.2	.0	.7	2.2	.7	.7	.0	.0	.0	.2	13.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.8	
TOT OBS	1	0	2	7	13	5	1	0	0	6	104	139
TOT PCT	.7	.0	1.4	5.0	9.4	3.6	.7	.0	.0	4.3	74.8	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
>4000	4.3	4.3	4.3	4.3	4.3	4.3	4.3	4.3
>3500	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
>3000	8.6	8.6	8.6	8.6	8.6	8.6	8.6	8.6
>2500	15.0	17.1	17.1	17.9	17.9	17.9	17.9	17.9
>2000	17.1	20.7	22.1	22.9	22.9	22.9	22.9	22.9
>1500	18.6	22.1	23.6	24.3	24.3	24.3	24.3	24.3
>1000	18.6	22.1	23.6	24.3	24.3	24.3	24.3	24.3
>500	18.6	22.1	23.6	24.3	24.3	25.0	25.0	25.0
>0	18.6	22.1	23.6	24.3	24.3	25.0	25.0	25.0
TOTAL	26	31	33	34	34	35	35	35

TOTAL NUMBER OF OBS: 140

PCT FREQ NH <5/8: 75.0

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	8.1	19.4	14.4	16.9	13.1	2.5	5.0	3.8	16.3	.6	160



PERIOD: (PRIMARY) 1926-1973  
(OVER-ALL) 1880-1973

JANUARY

AREA 0092 CAPE TARTOT  
13.15 126.7E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.2	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3	
1/2<1	PCP	.0	.0	.5	.2	.2	.2	.0	.0	.0	.0	1.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.5	.2	.2	.2	.0	.0	.0	.0	1.0	
1<2	PCP	.0	.3	.0	.3	.2	.2	.0	.0	.0	.0	1.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3	
	TOT %	.0	.3	.0	.3	.2	.2	.3	.0	.0	.0	1.3	
2<5	PCP	.0	.2	.0	.0	.0	.0	.0	.7	.0	.0	1.0	
	NO PCP	.4	.2	.0	.0	.0	.0	.0	.4	.0	.0	1.0	
	TOT %	.4	.5	.0	.0	.0	.0	.0	1.1	.0	.0	2.0	
5<10	PCP	1.0	.8	1.8	.8	.8	.3	.8	.5	.0	.3	7.3	
	NO PCP	3.1	3.9	2.6	1.4	2.1	3.5	9.2	3.0	.0	3.6	32.3	
	TOT %	4.0	4.7	4.5	2.2	2.9	3.8	10.1	3.5	.0	4.0	39.6	
10+	PCP	.3	.3	.2	.2	.4	.2	.8	.1	.0	.0	2.6	
	NO PCP	5.0	1.7	2.1	1.4	1.2	8.6	20.5	9.6	.0	3.0	53.1	
	TOT %	5.4	2.1	2.4	1.7	1.6	8.7	21.4	9.7	.0	3.0	55.8	
TOT OBS													
TOT PCT													
		10.1	7.6	7.3	4.4	4.8	12.9	31.8	14.3	.0	6.9	100.0	303

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.2	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3	
	TOT %	.2	.0	.0	.0	.0	.0	.0	.1	.0	.0	.3	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.2	.2	.2	.2	.0	.0	.0	.0	.7	
	11-21	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.5	.2	.2	.2	.0	.0	.0	.0	1.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.4	.2	.0	.0	.0	.0	.0	.0	.0	.7	
	11-21	.0	.0	.0	.3	.2	.2	.3	.0	.0	.0	1.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.4	.2	.3	.2	.2	.3	.0	.0	.0	1.6	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.4	1.1	.3	.0	.0	.0	.0	.4	.0	.0	2.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.7	
	TOT %	.4	1.1	.3	.0	.0	.0	.0	1.1	.0	.0	2.9	
5<10	0-3	.8	.3	.3	.3	.3	.5	1.1	.5	.0	3.9	8.1	
	4-10	2.6	2.4	2.3	.9	1.2	2.3	4.1	2.8	.0	.0	18.6	
	11-21	.6	1.5	1.5	1.0	1.3	1.0	4.4	.2	.0	.0	11.4	
	22+	.0	.3	.3	.0	.0	.0	.3	.0	.0	.0	1.0	
	TOT %	4.0	4.6	4.4	2.2	2.9	3.7	9.9	3.4	.0	3.9	39.1	
10+	0-3	.7	.0	.2	.3	.2	.7	1.2	.3	.0	2.9	6.5	
	4-10	3.1	1.7	1.9	1.3	1.4	4.6	10.1	5.5	.0	.0	29.6	
	11-21	1.5	.3	.3	.0	.0	3.3	9.8	3.0	.0	.0	18.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.7	
	TOT %	5.3	2.0	2.4	1.6	1.6	8.6	21.1	9.5	.0	2.9	55.0	
TOT OBS													
TOT PCT													
		9.9	8.2	7.8	4.3	4.7	12.7	31.4	14.1	.0	6.8	100.0	307

## JANUARY

PERIOD: (PRIMARY) 1924-1973  
(OVER-ALL) 1880-1973

AREA 0022 CAPE TALBOT  
13.1S 126.7E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL DBS	NH <4/8 ANY HGT	TOTAL DBS
00003	.0	.0	.0	10.3	13.8	3.4	.0	.0	.0	.0	27.6	72.4	29
06009	.0	.0	.0	2.6	2.6	2.6	2.6	.0	.0	.0	10.3	89.7	39
12015	.0	.0	2.6	5.1	10.3	7.7	.0	.0	.0	10.3	35.9	64.1	39
18021	2.3	.0	2.3	2.3	9.3	.0	.0	.0	.0	4.7	20.9	79.1	43
TOT	1	0	2	7	13	5	1	0	0	6	35	115	150
PCT	.7	.0	1.3	4.7	8.7	3.3	.7	.0	.0	4.0	23.3	76.7	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<3	3<10	10+	TOTAL DBS
00003	.0	1.2	1.2	.0	50.6	47.1	85
06009	.0	1.6	.0	4.7	34.4	59.4	64
12015	.0	.0	2.9	2.9	42.3	51.9	104
18021	1.5	1.5	1.5	4.6	29.2	61.5	65
TOT	1	3	5	9	128	172	318
PCT	.3	.9	1.6	2.8	40.3	54.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL DBS
00003	.0	.0	10.3	17.2	72.4	29
06009	.0	.0	2.6	7.9	89.5	39
12015	.0	2.8	8.3	30.6	61.1	39
18021	2.7	5.4	13.5	13.5	73.0	37
TOT	1	3	12	24	104	140
PCT	.7	2.1	8.6	17.1	74.3	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL DBS	PCT FREQ
95/99	.0	.0	.4	.0	.0	.0	.0	.0	1	.4
90/94	.0	.0	.4	.8	.8	.0	.0	.0	8	3.3
85/89	.0	.0	.0	.8	4.6	22.9	7.9	.8	89	37.1
80/84	.0	.0	.0	.0	.8	13.8	33.3	5.8	129	53.8
75/79	.0	.0	.0	.0	.0	.0	2.9	2.5	13	5.4
TOTAL	0	0	2	4	15	90	106	23	240	100.0
PCT	.0	.0	.8	1.7	6.3	37.5	44.2	9.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.0	.0	.4
1.3	.4	.4	.0	.0	.0	.0	.0	.0	1.3
3.1	.6	2.9	1.3	1.0	6.8	12.1	4.3	.0	5.0
3.8	2.8	4.1	2.0	3.5	7.7	19.5	8.8	.0	1.7
.0	.4	1.5	1.0	1.0	.2	.7	.5	.0	.0
8.1	4.3	8.9	4.3	5.6	14.7	32.3	13.5	.0	8.3

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL DBS
00003	94	93	93	85	79	77	77	85.1	92
06009	95	94	91	85	78	75	75	85.3	64
12015	90	88	86	83	80	76	76	83.4	106
18021	87	86	86	83	78	75	75	82.5	65
TOT	95	94	89	84	79	75	75	84.1	327

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL DBS
00003	.0	4.6	10.8	44.6	33.8	6.2	78	65		
06009	.0	4.3	19.6	50.0	21.7	4.3	74	46		
12015	.0	1.2	1.2	34.9	50.0	12.8	82	86		
18021	.0	.0	.0	24.5	64.2	11.3	83	59		
TOT	0	6	17	95	109	23	80	250		

## JANUARY

PERIOD: (PRIMARY) 1926-1973  
(OVER-ALL) 1880-1973

TABLE 17

AREA 0022 CAPE TALBOT  
13.15 126.7EPCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
9/10	.0	.0	.0	.0	.0	.4	1	.0	.4
7/8	.0	.0	.4	.8	.4	.0	4	.0	1.7
6	.0	.0	.0	.4	.0	.0	1	.0	.4
5	.0	.0	.8	.0	.0	.0	2	.0	.8
4	.0	.0	1.2	1.2	.4	.0	7	.0	2.0
3	.0	.0	.8	.4	.4	.4	5	.0	2.1
2	.0	.0	1.2	2.9	.4	.0	11	.4	4.1
1	.0	.0	3.3	6.6	.8	.0	26	.0	10.7
0	.0	.4	8.3	6.2	.0	.0	36	.4	14.5
-1	.0	.0	9.9	9.1	.0	.0	46	.0	19.0
-2	.0	2.1	10.7	4.5	.0	.0	42	.0	17.4
-3	.0	.4	5.4	2.5	.0	.0	20	.0	8.3
-4	.4	.4	5.0	.8	.0	.0	16	.0	6.6
-5	.0	1.7	2.9	.0	.0	.0	11	.0	4.5
-6	.0	.8	2.1	.0	.0	.0	7	.0	2.9
-7/-8	.0	1.7	.8	.0	.0	.0	6	.0	2.5
-9/-10	.0	.4	.0	.0	.0	.0	1	.0	.4
TOTAL	1	19	128	86	2	2	242	2	240
PCT	.4	7.9	52.9	35.5	2.5	.8	100.0	.8	99.2

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.9	.9	.0	.0	.0	.0	2.8	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.9	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	1.9	.0	.0	.0	.0	1.9	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.9	2.8	.9	.0	.0	.0	5.6	.0	.0	.0	.0	.0	.0	.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.9	.0	.0	.0	.0	1.9	.9	.9	.0	.0	.0	.0	1.9
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2
3-4	.0	.0	.9	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	1.9	.9	.0	.0	.0	2.8	.9	1.2	.9	.0	.0	.0	3.0

PERIOD: (OVER-ALL) 1963-1973

JANUARY

AREA 0022 CAPE TALBOT  
13.15 126.7E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	.7	.0	.0	.0	.0	.7	.0	.0	3.2	.0	.0	.0	.0	.0	3.2
1-2	.0	1.4	.9	.0	.0	.0	2.3	.0	.0	3.5	1.2	.0	.0	.0	.0	4.6
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9	7.2	.0	.0	.0	.0	12.0
5-6	.0	.0	.9	.0	.0	.0	.5	.0	.0	.0	.9	.0	.0	.0	.0	.9
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.1	1.9	.0	.0	.0	3.9	.0	.0	11.6	9.3	.0	.0	.0	.0	20.8

HGT	W							PCT	NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	.0	2.5	.0	.0	.0	.0	2.5	.0	.0	.9	.0	.0	.0	.0	.9	.0
1-2	.9	9.7	3.5	.0	.0	.0	14.1	.0	.0	1.9	2.8	.0	.0	.0	4.6	.0
3-4	.0	6.3	11.3	.0	.0	.0	17.6	.0	.0	.9	3.7	.0	.0	.0	4.6	.0
5-6	.0	1.9	4.4	.0	.0	.0	6.3	.0	.0	.0	1.2	.9	.0	.0	2.1	.0
7	.0	.9	1.6	.0	.0	.0	2.5	.0	.0	.0	.2	.9	.0	.0	1.2	.0
8-9	.0	.0	.9	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	21.3	21.8	.0	.0	.0	44.0	.0	.0	3.7	7.9	1.9	.0	.0	13.4	93.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.1	11.0	.0	.0	.0	.0	.0	21.1
1-2	.9	16.5	9.2	.0	.0	.0	.0	26.6
3-4	.0	11.9	22.9	.0	.0	.0	.0	34.9
5-6	.0	3.7	7.3	.9	.0	.0	.0	11.9
7	.0	.9	1.8	.9	.0	.0	.0	3.7
8-9	.0	.0	1.8	.0	.0	.0	.0	1.8
10-11	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	11.0	44.0	43.1	1.8	.0	.0	100.0	109

PERIOD: (OVER-ALL) 1964-1973

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	8.2	17.3	33.6	9.1	2.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	78
6-7	.0	.9	2.7	3.6	2.7	3.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15
8-9	.0	.0	.9	3.6	.9	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7
10-11	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0
NOET	7.3	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9
TOTAL	17	21	41	18	8	5	0	0	0	0	0	0	0	0	0	0	0	0	0	110	3
PCT	15.5	19.1	37.3	16.4	7.3	4.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1880-1969

# FEBRUARY

AREA 0022 CAPE TALROT  
12.95 126.6E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	.0	.0	.0	.0	.0	.0	.0	.0	6.3	.0	.0	.0	.0	.0	93.7	
NE	.0	1.1	.0	.0	.0	.0	.0	1.1	.0	9.0	.0	.0	.0	.0	89.9	
E	.0	5.4	.0	.0	.0	.0	.0	5.4	7.1	7.1	.0	.0	.0	.0	80.4	
SE	22.9	22.9	.0	.0	.0	.0	.0	45.7	.0	22.9	.0	.0	.0	.0	54.3	
S	.0	9.3	.0	.0	.0	.0	.0	9.3	.0	12.8	.0	.0	3.5	.0	74.4	
SW	2.5	8.9	.0	.0	.0	.0	.0	11.4	.0	7.6	2.5	.0	.6	.0	77.8	
W	.0	6.0	.0	.0	.0	.0	.0	6.0	.9	12.2	7.2	.0	.0	.0	73.7	
NW	.0	8.2	.0	.0	.0	.0	.0	8.2	.8	3.3	6.6	.0	.0	.0	81.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.8	.0	.0	5.9	.0	82.4	
TOT PCT	1.2	6.3	.0	.0	.0	.0	.0	7.5	1.2	9.5	3.6	.0	.8	.0	78.3	
TOT OBS:	253															

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE								OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA	
06003	2.4	7.2	.0	.0	.0	.0	.0	9.6	.0	1.2	3.6	.0	1.2	.0	85.5	
06009	.0	6.5	.0	.0	.0	.0	.0	6.5	.0	.0	2.2	.0	.0	.0	91.3	
12015	.0	4.7	.0	.0	.0	.0	.0	4.7	2.4	18.8	3.5	.0	1.2	.0	69.4	
18021	3.9	7.8	.0	.0	.0	.0	.0	11.8	2.0	13.7	3.9	.0	.0	.0	70.6	
TOT PCT TOT OBS:	1.5 265	6.4	.0	.0	.0	.0	.0	7.9	1.1	9.1	3.4	.0	.8	.0	78.5	

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.7	4.0	2.4	.0	.0	.0		8.2	7.8		2.2	7.1	11.5	13.0	11.6	9.1	4.3	7.9
NE	.5	5.3	4.0	.0	.0	.0		9.8	9.3		9.4	12.9	12.5	19.0	5.2	15.9	5.0	7.9
E	2.5	3.3	.5	.0	.0	.0		6.3	5.6		3.9	7.1	8.3	2.0	6.0	2.3	10.7	10.5
SE	.7	2.1	.9	.0	.0	.0		3.8	7.4		5.0	4.3	.0	2.0	.0	2.3	7.1	15.8
S	1.0	5.2	1.7	.0	.0	.0		7.9	7.2		13.3	10.7	.0	10.0	7.8	11.4	4.3	.0
SW	2.5	6.3	4.3	1.4	.0	.0		14.5	9.6		23.3	15.0	17.7	8.0	12.7	6.8	12.9	15.8
W	2.8	16.4	10.8	1.6	.0	.0		31.5	9.9		31.7	20.0	30.2	20.0	35.8	40.9	35.0	36.8
NW	1.1	6.9	3.4	.0	.0	.0		11.4	8.1		8.9	17.1	11.5	22.0	13.4	6.8	6.4	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	6.6							6.6	.0		2.2	5.7	8.3	.0	7.5	4.5	14.3	5.3
TOT OBS	53	135	76	8	0	0	272		8.2		45	35	24	25	67	22	35	19
TOT PCT	19.5	49.6	27.9	2.9	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40					00	06	12	18
N	4.0	3.9	.4	.0	.0		8.2	7.8	4.4	12.2	11.0	5.6
NE	4.1	5.0	.7	.0	.0		9.8	9.3	10.9	15.8	7.9	6.0
E	4.0	2.3	.0	.0	.0		6.3	5.6	5.3	5.1	5.1	10.6
SE	2.0	1.6	.2	.0	.0		3.8	7.4	4.7	1.0	.6	10.2
S	4.6	2.8	.5	.0	.0		7.9	7.2	12.2	5.1	8.7	2.8
SW	6.1	6.2	2.3	.0	.0		14.5	9.6	19.7	12.8	11.2	13.9
W	9.4	19.0	3.1	.0	.0		31.5	9.9	26.6	25.0	37.1	35.6
NW	4.9	6.3	.2	.0	.0		11.4	8.1	12.5	16.8	11.8	4.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	6.6						6.6	.0	3.8	6.1	6.7	11.1
TOT OBS	124	128	20	0	0	272		8.2	80	49	89	54
TOT PCT	45.6	47.1	7.4	.0	.0		100.0		100.0	100.0	100.0	100.0



## FEBRUARY

PERIOD: (PRIMARY) 1925-1969  
(OVER-ALL) 1880-1969

AREA 0022 CAPE TALPOT  
12.95 126.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	3.8	13.8	52.5	23.8	6.3	.0	.0	.0	8.5	100.0	80
06009	6.1	10.2	49.0	32.7	2.0	.0	.0	.0	8.5	100.0	49
12015	6.7	12.4	50.6	29.2	1.1	.0	.0	.0	7.9	100.0	89
18021	11.1	14.6	44.4	27.8	1.9	.0	.0	.0	7.8	100.0	54
TOT	18	35	135	76	8	0	0	0	8.2		272
PCT	6.6	12.9	49.6	27.9	2.9	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	2.5	.7	3.2	2.4	4.7	4.7
NE	2.8	3.7	3.5	.9	4.1	4.1
E	.9	3.7	2.3	.9	4.7	4.7
SE	.0	2.1	.0	.0	4.0	4.0
S	2.5	3.0	.9	.7	3.3	3.3
SW	3.5	3.2	3.2	4.4	4.8	4.8
W	6.9	5.3	9.0	9.3	5.0	5.0
NW	3.0	2.3	2.8	.7	3.5	3.5
VAR	.0	.0	.0	.0	.0	.0
CALM	2.8	1.9	3.7	.0	3.9	3.9
TOT OBS	27	28	31	22	108	4.4
TOT PCT	25.0	25.9	28.7	20.4	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	1.9	1.6	.0	.0	.0	.0	.0	5.6	5.6
NE	.0	.0	.0	.0	.2	1.2	1.2	.0	.0	.0	8.3	8.3
E	.0	.0	.0	.0	.0	.7	1.6	.0	.0	.0	5.6	5.6
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	2.1
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.2	7.2
SW	.0	.0	.0	.0	.7	.9	.9	.0	.0	.0	11.8	11.8
W	.0	.0	.0	3.5	8.6	4.6	.0	.0	.0	.0	13.9	13.9
NW	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	7.6	7.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.3	9.3
TOT OBS	0	0	0	6	13	8	4	0	0	0	77	108
TOT PCT	.0	.0	.0	5.6	12.0	7.4	3.7	.0	.0	.0	71.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.0	.0	.0	.0	.0	.0	.0	.0
>4000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	3.7	3.7	3.7	3.7	3.7	3.7	3.7	3.7
>3000	10.2	11.1	11.1	11.1	11.1	11.1	11.1	11.1
>2500	21.3	23.1	23.1	23.1	23.1	23.1	23.1	23.1
>2000	25.9	28.7	28.7	28.7	28.7	28.7	28.7	28.7
>1500	25.9	28.7	28.7	28.7	28.7	28.7	28.7	28.7
>1000	25.9	28.7	28.7	28.7	28.7	28.7	28.7	28.7
>500	25.9	28.7	28.7	28.7	28.7	28.7	28.7	28.7
>0	25.9	28.7	28.7	28.7	28.7	28.7	28.7	28.7
TOTAL	28	31	31	31	31	31	31	31

TOTAL NUMBER OF OBS: 108

PCT FREQ NH &lt;5/8: 71.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
11.4	15.8	15.8	16.7	11.4	4.4	5.3	5.3	14.0	.0	114

PERIOD: (PRIMARY) 1925-1969  
(OVER-ALL) 1880-1969

FEBRUARY

AREA 0022 CAPE TALROT  
12.95 126.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	
	NO PCP	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	
	TOT %	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	.8	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	PCP	.0	.1	.3	1.6	.8	1.4	2.0	1.0	.0	.0	7.1	
	NO PCP	1.6	1.8	.4	.8	4.0	4.2	14.7	5.7	.0	1.6	34.8	
	TOT %	1.6	1.9	.7	2.4	4.7	5.6	16.7	6.7	.0	1.6	41.9	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	4.6	6.9	4.8	1.1	3.8	9.2	16.4	5.3	.0	5.1	57.3	
	TOT %	4.6	6.9	4.8	1.1	3.8	9.2	16.4	5.3	.0	5.1	57.3	
TOT OBS													253
TOT PCT		6.2	8.8	5.5	3.5	8.5	15.6	33.1	12.1	.0	6.7	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	
	4-10	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	.8	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	0-3	.8	.0	.0	.4	.4	.0	1.4	.6	.0	1.6	5.1	
	4-10	.8	1.8	.4	1.2	3.6	1.4	7.7	4.2	.0		20.9	
	11-21	.0	.1	.3	.8	.8	3.7	6.6	2.0	.0		14.2	
	22+	.0	.0	.0	.0	.0	.6	1.0	.0	.0		1.6	
	TOT %	1.6	1.9	.7	2.4	4.7	5.6	16.7	6.7	.0	1.6	41.9	
10+	0-3	.7	.1	2.5	.2	.7	2.3	1.7	.6	.0	5.1	13.8	
	4-10	2.4	2.6	2.4	.9	2.1	5.0	9.1	3.3	.0		27.7	
	11-21	1.6	4.2	.0	.0	1.0	1.0	4.9	1.5	.0		14.2	
	22+	.0	.0	.0	.0	.0	.9	.7	.0	.0		1.6	
	TOT %	4.6	6.9	4.8	1.1	3.8	9.2	16.4	5.3	.0	5.1	57.3	
TOT OBS													253
TOT PCT		6.2	8.8	5.5	3.5	8.5	15.6	33.1	12.1	.0	6.7	100.0	

## FEBRUARY

PERIOD: (PRIMARY) 1925-1969  
(OVER-ALL) 1880-1969

AREA 0022 CAPE TALBOT  
12.95 126.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	4.2	8.3	8.3	4.2	.0	.0	.0	25.0	75.0	24
06009	.0	.0	.0	8.7	17.4	.0	4.3	.0	.0	.0	30.4	69.6	23
12015	.0	.0	.0	7.9	13.2	7.9	.0	.0	.0	.0	28.9	71.1	38
18021	.0	.0	.0	.0	7.4	11.1	7.4	.0	.0	.0	25.9	74.1	27
TOT	0	0	0	6	13	8	4	0	0	0	31	81	112
PCT	.0	.0	.0	5.4	11.6	7.1	3.6	.0	.0	.0	27.7	72.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	.0	50.6	49.4	83
06009	.0	.0	.0	.0	43.5	56.5	46
12015	.0	.0	1.2	.0	41.2	57.6	85
18021	.0	.0	2.0	.0	39.2	56.8	51
TOT	0	0	2	0	117	146	265
PCT	.0	.0	.8	.0	44.2	55.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	4.2	20.8	75.0	24
06009	.0	.0	8.7	21.7	69.6	23
12015	.0	.0	8.8	23.5	67.6	34
18021	.0	.0	3.7	25.9	70.4	27
TOT	0	0	7	25	76	108
PCT	.0	.0	6.5	23.1	70.4	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.5	.0	1.1	.5	.0	.5	.0	5	2.6
85/89	.0	.0	.0	.0	4.7	19.5	17.9	2.1	84	44.2
80/84	.0	.0	.0	.0	2.6	5.8	37.9	5.3	98	51.6
75/79	.0	.0	.0	.0	.0	.0	1.6	.0	3	1.6
TOTAL	0	1	0	2	15	48	110	14	190	100.0
PCT	.0	.5	.0	1.1	7.9	25.3	57.9	7.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.5	.1	.4	1.1	.0	.5
2.2	5.7	1.4	.5	4.9	2.8	17.8	6.8	.0	2.1
3.2	.0	1.8	2.4	3.3	11.2	21.2	3.8	.0	4.7
.0	.0	.0	.5	.0	.0	.5	.5	.0	.0
5.4	5.7	3.3	3.4	8.7	14.1	39.9	12.2	.0	7.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	92	91	91	85	79	74	74	84.5	87
06009	93	92	91	86	81	73	73	85.3	50
12015	91	89	87	84	79	77	77	83.9	92
18021	88	87	86	83	79	76	76	82.8	54
TOT	93	92	89	84	79	74	73	84.1	283

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	3.6	10.7	25.0	51.8	8.9	79	56
06009	.0	2.9	8.8	50.0	35.3	2.9	76	34
12015	.0	.0	8.6	20.0	61.4	10.0	82	70
18021	.0	.0	4.8	21.4	66.7	7.1	82	42
TOT	0	3	17	54	112	16	80	202

## FEBRUARY

PERIOD: (PRIMARY) 1925-1969  
(OVER-ALL) 1880-1969

TABLE 17

AREA 0022 CAPE TALBOT  
12.95 126.6E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	W FOG
9/10	.0	.0	.0	.0	2.1	.0	4	.0	2.1
7/8	.0	.0	.0	.5	.0	.0	1	.0	.5
6	.0	.0	.0	.5	.0	.0	2	.0	1.1
5	.0	.0	.5	1.6	.5	.0	5	.0	2.7
4	.0	.0	1.6	.5	.5	.0	5	.5	2.1
3	.0	.0	.5	2.7	1.1	.0	8	.0	4.3
2	.0	.0	2.7	4.8	.0	.5	15	.5	7.5
1	.0	.0	.0	8.6	2.7	.0	21	1.1	10.2
0	1.1	.5	9.6	7.0	.0	.0	34	.0	16.2
-1	1.1	.5	9.1	4.8	.0	.0	29	.0	15.5
-2	.0	2.7	6.4	7.5	.5	.0	32	.0	17.1
-3	.5	.0	5.3	2.7	.0	.0	16	.0	8.6
-4	.0	.5	2.7	.5	.0	.0	7	.0	3.7
-5	.0	.5	.5	.0	.0	.0	2	.0	1.1
-6	.0	.5	.5	.5	.0	.0	3	.0	1.6
-7/-8	.0	.0	.5	.0	.0	.0	1	.0	.5
-9/-10	.0	.5	.0	.0	.0	.0	1	.0	.5
-11/-13	.0	.5	.0	.0	.0	.0	1	.0	.5
TOTAL	5		91		10		187	4	183
PCT	2.7	12	6.4	48.7	36.4	5.3	100.0	2.1	97.9

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.1	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0
1-2	.0	1.5	.0	.0	.0	.0	1.5	.0	2.9	1.5	.0	.0	.0	4.4
3-4	.0	.0	1.1	.0	.0	.0	5.1	.0	.0	4.4	.0	.0	.0	4.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	5.5	1.1	.0	.0	.0	7.7	.0	2.9	5.9	.0	.0	.0	8.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.5	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	1.5	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	2.9	.0	.0	.0	.0	2.9	.0	.0	.0	.0	.0	.0	.0

PERIOD: (OVER-ALL) 1963-1969

FEBRUARY

AREA 0022 CAPE TALBOT  
12.9S 126.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	1.1	2.6	.0	.0	.0	.0	3.7	.4	2.2	.0	.0	.0	.0	.0	2.6
1-2	.0	.0	1.5	.0	.0	.0	1.5	.4	8.8	.0	.0	.0	.0	.0	9.2
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	4.0	1.5	.0	.0	.0	6.6	.7	11.0	.0	.0	.0	.0	.0	11.8

HGT	W							NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	1.1	3.7	.0	.0	.0	.0	6.3	2.2	.4	.0	.0	.0	.0	.0	2.6
1-2	.0	15.4	2.9	.0	.0	.0	19.5	.0	3.7	.0	.0	.0	.0	.0	3.7
3-4	.0	.0	9.6	.0	.0	.0	12.5	.0	.4	4.0	.0	.0	.0	.0	4.4
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	3.7	22.1	12.5	.0	.0	.0	38.2	2.2	4.4	4.0	.0	.0	.0	10.7	86.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	20.6	10.3	.0	.0	.0	.0	30.9	
1-2	1.5	32.4	5.9	.0	.0	.0	39.7	
3-4	.0	10.3	19.1	.0	.0	.0	29.4	
5-6	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	22.1	52.9	25.0	.0	.0	.0	100.0	68

PERIOD: (OVER-ALL) 1965-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SPC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	11.6	40.6	24.6	1.4	1.4	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	54
6-7	.0	.0	4.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3
INDEF	14.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	10
TOTAL	18	28	20	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	69	2
PCT	26.1	40.6	29.0	1.4	1.4	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0



PERIOD: (PRIMARY) 1922-1967  
(OVER-ALL) 1884-1967

MARCH

AREA 0022 CAPE TALROT  
12.95 126.5E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	.0	4.5	2.2	.0	.0	.0	.0	6.7	3.4	7.9	.0	.0	6.7	.0	75.3
NE	12.5	3.6	1.8	.0	.0	.0	.0	17.9	3.6	1.8	.0	.0	5.4	.0	72.3
E	9.9	16.9	2.8	.0	.0	.0	.0	29.6	.0	9.9	.0	.0	2.8	.0	59.9
SE	21.8	3.6	21.8	.0	.0	.0	.0	47.3	7.3	1.8	.0	.0	.0	.0	43.6
S	.0	2.6	.0	.0	.0	.0	.0	2.6	.0	.0	10.4	.0	10.4	.0	76.6
SW	9.7	1.3	.0	.0	.0	.0	.0	11.0	.0	15.6	5.2	.0	6.5	.0	61.7
W	12.2	9.0	.0	.0	.0	.0	.0	21.2	.0	7.7	2.6	.0	6.4	.0	62.2
NW	13.5	9.8	.0	.0	.0	.0	.0	23.3	.6	4.9	.0	.0	2.5	.0	68.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	.0	92.9
TOT PCT	9.6	6.8	2.0	.0	.0	.0	.0	18.3	1.2	6.8	2.0	.0	5.2	.0	66.9
TOT OBS:	251														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WUOK (GMT)	RAIN	RAIN SHR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THOR LTNG	FGD W/ PCPN	FOG W/ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NIG SIG WEA
00603	7.9	9.2	2.6	.0	.0	.0	.0	19.7	1.3	1.3	2.6	.0	6.6	.0	68.4
06009	7.0	4.7	2.3	.0	.0	.0	.0	14.0	2.3	.0	.0	.0	4.7	.0	79.1
12015	13.3	7.2	.0	.0	.0	.0	.0	20.5	1.2	8.4	2.4	.0	3.6	.0	65.1
18021	9.3	3.7	3.7	.0	.0	.0	.0	16.7	.0	16.7	1.9	.0	7.4	.0	57.4
TOT PCT	9.8	6.6	2.0	.0	.0	.0	.0	18.4	1.2	6.6	2.0	.0	5.5	.0	66.8
TOT OBS:	256														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							48+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	00	03					06	09	12	15	18	21		
N	1.7	3.2	2.8	.7	.0	.0		8.4	10.2	9.3	15.5	10.5	6.3	7.5	6.0	6.9	2.5		
NE	1.7	5.1	2.9	.5	.2	.0		10.4	10.1	5.5	12.1	9.7	12.5	11.6	12.0	14.4	7.9		
E	1.4	6.3	4.7	.9	.2	.0		13.4	11.4	14.0	5.2	22.6	12.5	14.5	6.0	18.1	5.3		
SE	.2	3.3	2.7	.7	.0	.0		6.9	12.5	10.2	6.9	7.3	3.1	9.4	4.0	3.8	.0		
S	2.4	4.1	1.2	.0	.0	.0		7.7	6.6	10.6	12.9	8.9	9.4	2.5	14.0	5.6	2.5		
SW	1.6	10.6	1.6	1.2	.0	.0		15.1	8.4	22.0	19.8	4.0	6.3	13.0	10.0	20.0	15.8		
W	2.9	9.5	5.2	.5	.0	.0		18.1	9.3	9.7	15.5	16.9	18.8	20.7	28.0	15.6	31.6		
NW	1.6	6.6	4.3	2.1	.0	.0		14.5	10.9	11.9	12.1	13.7	25.0	16.3	16.0	5.6	28.9		
VAR	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	5.6							5.6	.0	6.8	.0	6.5	6.3	4.3	4.0	10.0	5.3		
TOT OBS	55	140	73	19	1	0	288		9.3	59	29	31	16	69	25	40	19		
TOT PCT	19.1	48.6	25.3	6.6	.3	.0		100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	2.7	3.6	2.1	.0	.0		8.4	10.2	11.4	9.0	7.2	5.5	
NE	4.1	4.2	1.5	.7	.0		10.4	10.1	7.7	10.6	11.7	12.3	
E	3.8	6.1	2.8	.7	.0		13.4	11.4	11.1	19.1	12.2	14.0	
SE	1.9	3.1	1.1	.7	.0		6.9	12.5	9.1	5.9	8.0	2.5	
S	4.2	3.4	.2	.0	.0		7.7	6.6	11.4	9.0	5.6	4.7	
SW	8.2	5.4	1.4	.2	.0		15.1	8.4	21.3	4.8	12.2	18.6	
W	6.3	9.1	2.4	.2	.0		18.1	9.3	11.6	17.6	22.6	20.8	
NW	6.3	3.6	4.5	.0	.0		14.5	10.9	11.9	17.6	16.2	13.1	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	5.6						5.6	.0	4.5	6.4	4.3	8.5	
TOT OBS	124	111	46	7	0	288		9.3	88	47	94	69	
TOT PCT	43.1	38.5	16.0	2.4	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1927-1967  
(OVER-ALL) 1884-1967

MARCH

AREA 0022 CAPE TALROT  
12.95 126.5E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
00003	4.5	15.4	50.0	22.7	6.8	.0	.0	9.3	100.0	88
06009	6.4	12.8	46.8	25.5	8.5	.0	.0	10.0	100.0	47
12015	4.3	12.8	52.1	25.5	4.3	1.1	.0	9.0	100.0	94
18021	8.5	11.9	42.4	28.8	8.5	.0	.0	9.4	100.0	59
TOT	16	39	140	73	19	1	0	9.3		288
PCT	5.6	13.5	48.6	25.3	6.6	.3	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & 10	TOTAL DBSD	MEAN CLOUD COVER
N	2.5	.0	2.1	2.7		4.8
NE	5.3	1.1	1.5	3.2		3.7
E	4.0	.6	4.4	10.1		5.9
SE	.2	.0	1.9	7.4		7.5
S	1.3	.0	3.2	1.5		5.7
SW	4.4	1.1	4.8	1.1		3.9
W	4.2	2.3	5.0	3.6		4.6
NW	1.7	2.5	2.3	5.9		5.7
VAR	.0	.0	.0	.0		.0
CALM	4.2	1.7	.8	1.7		2.9
TOT DBS	33	11	31	44	119	5.0
TOT PCT	27.7	9.2	26.1	37.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH > 4/8)  
AND OCCURRENCE OF NH < 5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+ ANY HGT	NH < 5/8 TOTAL DBS
N	.0	.0	.0	.6	1.3	.0	.0	.0	.0	.0	5.5
NE	.0	.0	.0	.4	2.7	.2	.0	.0	.0	.0	7.6
E	.0	.0	.0	3.8	2.9	4.6	.0	.0	.0	.0	7.8
SE	.0	.0	.0	2.5	3.6	1.1	.8	.0	.0	.2	1.3
S	.0	.0	.0	.0	.8	.0	.0	.0	.0	1.5	2.7
SW	.0	.0	.0	.0	1.7	.0	.0	.8	.0	.0	8.4
W	.0	.0	.0	.0	2.7	.6	.0	.0	.0	.0	11.8
NW	.0	.0	.0	1.1	4.8	1.1	.8	.0	.0	.0	4.6
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	1.7	.0	.0	.0	.8	5.9
TOT DBS	0	0	0	10	23	14	2	0	1	3	66
TOT PCT	.0	.0	.0	8.4	17.3	11.8	1.7	.0	.8	2.5	55.5

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CEILING (FEET)	# OR >10	# OR >5	# OR >2	VSBY (NM) # OR >1	# OR >1/2	# OR >1/4	# OR >50YD	# OR >0
# OR >6500	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
# OR >5000	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4
# OR >3500	4.2	4.2	5.0	5.0	5.0	5.0	5.0	5.0
# OR >2000	14.3	16.0	16.8	16.8	16.8	16.8	16.8	16.8
# OR >1000	24.4	32.8	36.1	36.1	36.1	36.1	36.1	36.1
# OR >600	26.9	37.8	43.7	44.5	44.5	44.5	44.5	44.5
# OR >300	26.9	37.8	43.7	44.5	44.5	44.5	44.5	44.5
# OR >150	26.9	37.8	43.7	44.5	44.5	44.5	44.5	44.5
# OR >0	26.9	37.8	43.7	44.5	44.5	44.5	44.5	44.5
TOTAL	32	45	52	53	53	53	53	53

TOTAL NUMBER OF OBS: 119

PCT FREQ NH < 5/8: 55.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8 DBSD	TOTAL DBS
	14.5	16.0	6.9	7.6	7.6	6.9	4.6	4.6	31.3	131

PERIOD: (PRIMARY) 1922-1967  
(OVER-ALL) 1884-1967

MARCH

AREA 0022 CAPE TALBOT  
12.95 126.5E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.1	.3	.0	.0	.0	.0	.0	.0	.0	.4	
	NO PCP	.6	.6	.4	.0	.8	1.0	.2	.4	.0	.4	4.4	
	TOT %	.6	.7	.7	.0	.8	1.0	.2	.4	.0	.4	4.8	
2<5	PCP	.0	.4	.8	.8	.0	.4	.4	.8	.0	.0	3.6	
	NO PCP	.0	.0	.0	.0	.0	.1	.3	.0	.0	.0	.4	
	TOT %	.0	.4	.8	.8	.0	.5	.7	.8	.0	.0	4.0	
5<10	PCP	.6	1.4	2.4	1.0	.2	1.3	2.5	3.0	.0	.0	12.4	
	NO PCP	4.0	4.0	2.3	1.1	1.8	4.8	4.5	3.1	.0	.0	25.5	
	TOT %	4.6	5.4	4.7	2.1	2.0	6.1	7.0	6.1	.0	.0	37.8	
10+	PCP	.0	.1	.7	.8	.0	.0	.4	.0	.0	.0	2.0	
	NO PCP	3.7	4.6	7.3	1.8	4.9	7.8	7.3	9.0	.0	5.2	51.4	
	TOT %	3.7	4.7	8.0	2.6	4.9	7.8	7.7	9.0	.0	5.2	53.4	
TOT OBS													251
TOT PCT		8.9	11.2	14.1	5.5	7.7	15.3	15.5	16.2	.0	5.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.4	.0	.4	.0	.4	.0	.0	.4	.0	.4	2.0	
	4-10	.2	.6	.0	.0	.4	1.0	.2	.0	.0	.0	2.4	
	11-21	.0	.1	.3	.0	.0	.0	.0	.0	.0	.0	.4	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.6	.7	.7	.0	.8	1.0	.2	.4	.0	.4	4.8	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.1	.7	.0	.0	.0	.8	
	11-21	.0	.0	.8	.8	.0	.0	.0	.4	.0	.0	2.0	
	22+	.0	.4	.0	.0	.0	.4	.0	.4	.0	.0	1.2	
	TOT %	.0	.4	.8	.8	.0	.5	.7	.8	.0	.0	4.0	
5<10	0-3	.4	.4	.0	.0	.8	.6	.6	.0	.0	.0	2.8	
	4-10	1.4	2.2	2.8	.6	.8	3.3	3.6	2.9	.0	.0	17.5	
	11-21	2.2	2.4	.7	.7	.4	1.2	2.2	1.8	.0	.0	11.6	
	22+	.6	.4	1.2	.8	.0	1.0	.6	1.4	.0	.0	6.0	
	TOT %	4.6	5.4	4.7	2.1	2.0	6.1	7.0	6.1	.0	.0	37.8	
10+	0-3	.8	1.2	1.2	.2	1.4	.1	1.1	1.2	.0	5.2	12.4	
	4-10	2.1	2.9	3.8	1.6	2.7	7.2	5.2	4.5	.0	.0	29.9	
	11-21	.6	.6	3.0	.8	.8	.5	1.4	2.7	.0	.0	10.4	
	22+	.2	.0	.0	.0	.0	.0	.0	.6	.0	.0	.8	
	TOT %	3.7	4.7	8.0	2.6	4.9	7.8	7.7	9.0	.0	5.2	53.4	
TOT OBS													251
TOT PCT		8.9	11.2	14.1	5.5	7.7	15.3	15.5	16.2	.0	5.6	100.0	

MARCH

PERIOD: (PRIMARY) 1922-1967  
(OVER-ALL) 1884-1967AREA 0022 CAPE TALROT  
12.95 126.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00603	.0	.0	.0	6.7	26.7	13.3	3.3	.0	.0	6.7	56.7	43.3	30
06609	.0	.0	.0	11.1	22.2	11.1	.0	.0	.0	.0	44.4	55.6	27
12615	.0	.0	.0	11.1	16.7	8.3	.0	.0	.0	.0	36.1	63.9	36
18621	.0	.0	.0	3.4	10.3	13.8	3.4	.0	3.4	3.4	37.9	62.1	29
TOT	0	0	0	10	23	14	2	0	1	3	53	69	122
PCT	.0	.0	.0	8.2	18.9	11.5	1.6	.0	.8	2.5	43.4	56.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.0	.0	6.6	3.9	38.2	51.3	76
06609	.0	.0	2.3	4.7	37.2	55.8	43
12615	.0	.0	3.6	3.6	43.4	49.4	83
18621	.0	.0	7.4	3.7	31.5	57.4	54
TOT	0	0	18	10	96	135	256
PCT	.0	.0	5.1	3.9	38.3	52.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00603	.0	.0	13.8	44.8	41.4	29
06609	.0	.0	14.8	29.6	55.6	27
12615	.0	.0	11.4	25.7	62.9	35
18621	.0	.0	7.1	32.1	60.7	28
TOT	0	0	14	39	66	119
PCT	.0	.0	11.8	32.8	55.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.5	.0	.0	.5	.0	2	1.0
85/89	.0	.0	.0	.5	2.9	11.7	9.8	1.5	54	26.3
80/84	.0	.0	.0	1.5	5.4	10.2	39.0	7.3	130	63.4
75/79	.0	.0	.0	.0	.0	.0	1.0	8.3	19	9.3
TOTAL	0	0	0	5	17	45	103	35	205	100.0
PCT	.0	.0	.0	2.4	8.3	22.0	50.2	17.1		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.1	.4	.2	.2	.0	.0	.0
1.2	2.7	4.9	1.2	2.7	3.0	4.8	3.4	.0	2.4	.0
6.6	8.2	7.6	1.8	4.6	10.6	8.9	12.2	.0	2.9	.0
.7	1.2	2.2	1.2	.2	1.2	.7	1.7	.0	.0	.0
8.5	12.1	14.6	4.4	7.9	15.1	14.6	17.3	.0	5.4	.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	92	90	89	83	79	76	76	83.4	88
06609	90	89	88	84	79	78	78	84.4	47
12615	88	87	86	83	78	76	76	82.7	93
18621	85	84	84	82	78	77	77	82.1	60
TOT	92	90	87	83	79	77	76	83.1	288

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	.0	3.2	3.2	20.6	57.1	15.9	82	63
06609	.0	5.6	5.6	38.9	36.1	13.9	79	36
12615	.0	1.5	14.7	14.7	50.0	19.1	81	68
18621	.0	.0	7.0	23.3	48.8	20.9	83	43
TOT	0	5	17	47	104	37	81	210

PERIOD: (PRIMARY) 1922-1967  
(OVER-ALL) 1964-1967

MARCH

AREA 0022 CAPE TALBOT  
12.95 126.5E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.7	.0	1	.0	.7
7/8	.0	.0	1.4	1.4	.7	5	.0	3.5
6	.0	.0	.7	1.4	.0	3	.0	2.1
5	.0	.0	.0	2.1	.0	3	.0	2.1
4	.0	1.4	2.1	.7	.0	6	.0	4.2
3	.0	.7	.0	2.8	.0	5	.0	3.5
2	.0	.7	4.2	2.8	.0	11	.0	7.7
1	.0	.0	9.2	4.9	.0	20	.0	14.1
0	.0	.0	8.5	4.2	.0	18	.0	12.7
-1	.0	2.1	4.9	3.5	.0	15	.0	10.6
-2	.0	2.1	6.3	2.8	.0	16	.0	11.3
-3	.0	2.8	2.8	3.5	.0	13	.0	9.2
-4	.0	1.4	3.5	.0	.0	7	.0	4.9
-5	.0	1.4	4.2	.0	.0	8	.0	5.6
-6	.0	.7	3.5	.0	.0	6	.0	4.2
-7/-8	.0	1.4	.0	.0	.0	2	.0	1.4
-9/-10	.7	.7	.0	.0	.0	2	.0	1.4
-11/-13	.0	.7	.0	.0	.0	1	.0	.7
TOTAL	1	23	73	44	1	142	0	142
PCT	.7	16.2	51.4	31.0	.7	100.0	100.0	

PERIOD: (OVER-ALL) 1963-1967

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.9	.0	.0	.0	.0	.9	.0	.3	.0	.0	.0	.0	.3
1-2	.0	3.0	.0	.0	.0	.0	3.0	.0	4.8	.0	.0	.0	.0	4.8
3-4	.0	.0	1.8	.0	.0	.0	1.8	.0	.0	1.2	.0	.0	.0	1.2
5-6	.0	1.2	.0	.0	.0	.0	1.2	.0	.0	1.8	.0	.0	.0	1.8
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	.0	.0	1.2
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.1	1.8	.0	.0	.0	6.9	.0	5.1	3.0	1.2	.0	.0	9.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.2	.9	.0	.0	.0	.0	2.1	.6	1.5	.0	.0	.0	.0	2.1
1-2	.0	7.2	.0	.0	.0	.0	7.2	.0	1.5	1.2	.0	.0	.0	2.7
3-4	1.2	2.4	2.4	.0	.0	.0	6.0	.0	1.2	2.4	.0	.0	.0	3.6
5-6	.0	.0	6.3	1.2	.0	.0	7.5	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	.0	1.2	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.4	10.5	9.7	2.4	.0	.0	24.1	.6	4.2	3.9	.0	.0	.0	8.7



PERIOD: (OVER-ALL) 1963-1967

MARCH

AREA 0022 CAPE TALBOT  
12.95 126.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	1.8	4.2	.0	.0	.0	.0	6.0	.0	.0	2.7	.0	.0	.0	.0	.0	2.7
1-2	.0	.0	1.2	.0	.0	.0	1.2	.0	.0	6.0	.0	.0	.0	.0	.0	6.0
3-4	.0	.0	1.2	.0	.0	.0	1.2	.0	.0	1.8	.3	.0	.0	.0	.0	2.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.8	4.2	2.4	.0	.0	.0	8.4	.0	10.5	.3	.0	.0	.0	.0	.0	10.8

HGT	W							PCT	NW							TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	1.2	1.2	.0	.0	.0	.0	2.4	.0	.0	1.5	.0	.0	.0	.0	1.5	
1-2	.0	3.3	.9	.0	.0	.0	4.2	.0	.0	6.6	1.5	.0	.0	.0	8.1	
3-4	.0	.0	.9	.0	.0	.0	3.9	.0	.0	.0	3.0	.0	.0	.0	3.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	.0	.0	2.4	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.2	7.5	1.8	.0	.0	.0	10.5	.0	8.1	4.5	2.4	.0	.0	.0	15.1	94.0

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	10.8	13.3	.0	.0	.0	.0	24.1	
1-2	.0	32.5	4.8	.0	.0	.0	37.3	
3-4	1.2	8.4	13.3	.0	.0	.0	22.9	
5-6	.0	1.2	8.4	3.6	.0	.0	13.2	
7	.0	.0	.0	2.4	.0	.0	2.4	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	12.0	55.4	26.5	6.0	.0	.0	100.0	83

PERIOD: (OVER-ALL) 1964-1967

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<6	6-7	8-9	10-11	12-13	14-15	16-17	18-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	18.1	33.7	13.3	3.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	57	2
6-7	.0	2.4	3.6	4.8	9.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	5
8-9	.0	.0	.0	.0	4.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	7
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
12-13	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	4.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	0
TOTAL	19	30	15	7	12	0	0	0	0	0	0	0	0	0	0	0	0	83	3
PCT	22.9	36.1	18.1	8.4	14.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1871-1969

APRIL

AREA 0022 CAPE TALROT  
13.15 126.4E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	4.1	2.1	.0	.0	.0	.0	.0	6.2	.0	3.1	.0	.0	.0	.0	90.7
NE	.9	7.0	1.8	.0	.0	.0	.0	9.7	.0	.0	.0	.0	.0	.0	90.3
E	.0	4.7	1.2	.0	.0	.0	.0	5.8	.0	.0	2.9	.0	.0	.0	91.2
SE	1.8	.0	.0	.0	.0	.0	.0	1.8	.0	.0	6.2	.0	.0	.0	92.0
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
W	.0	6.0	.0	.0	.0	.0	.0	6.0	.0	.0	.0	.0	.0	.0	94.0
NW	2.3	6.9	.0	.0	.0	.0	.0	9.2	.0	5.7	.0	.0	.0	.0	85.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	.0	2.4	.0	95.2
TOT PCT	.9	3.2	.6	.0	.0	.0	.0	4.7	.0	.6	2.1	.0	.3	.0	92.4
TOT OBS:	340														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG SNOW	DUST	NO SIG WEA
00003	1.0	7.6	.0	.0	.0	.0	.0	8.6	.0	.0	1.0	.0	.0	.0	.0	90.5
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
12015	.0	1.6	.8	.0	.0	.0	.0	2.4	.0	1.6	3.2	.0	.0	.0	.0	92.9
18021	2.9	4.3	1.4	.0	.0	.0	.0	8.7	.0	.0	4.3	.0	1.4	.0	.0	85.5
TOT PCT	.8	3.5	.5	.0	.0	.0	.0	4.9	.0	.5	2.2	.0	.3	.0	.0	92.1
TOT OBS:	367															

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.3	4.1	1.3	.1	.0	.0		6.8	7.6		3.8	4.0	6.1	8.6	8.2	10.6	2.7	12.5
NE	2.2	9.4	4.2	.3	.1	.0		16.1	8.9		10.4	15.0	20.3	20.7	13.5	18.1	16.2	23.2
E	3.0	15.2	6.6	.6	.1	.0		25.4	9.0		15.0	33.5	28.4	36.2	25.4	30.9	9.5	30.4
SE	2.0	10.1	4.9	.0	.0	.0		17.0	8.3		26.7	22.5	11.5	24.1	13.2	10.6	14.9	8.9
S	1.7	4.7	.5	.0	.0	.0		6.8	5.8		22.9	7.0	7.4	.0	.0	5.3	.0	7.1
SW	.8	2.6	.2	.0	.0	.0		3.6	6.6		5.4	1.0	4.1	1.7	6.4	4.3	.0	1.8
W	1.0	3.4	.4	.0	.0	.0		4.8	6.1		5.8	2.0	10.1	1.7	3.5	5.3	5.4	5.4
NW	1.5	4.3	.4	.1	.0	.0		6.4	6.1		3.3	5.0	4.1	3.4	9.5	6.4	10.8	7.1
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	13.1							13.1	.0		6.7	10.0	8.1	3.4	20.0	8.5	40.5	3.5
TOT OBS	95	192	66	4	1	0	358		7.0		60	50	37	29	70	47	37	28
TOT PCT	26.5	53.6	18.4	1.1	.3	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+				00	06	12	18
N	3.5	2.7	.4	.1	.0		6.8	7.6	3.9	7.2	9.2	6.9
NE	6.8	7.3	2.0	.1	.0		16.1	8.9	12.5	20.5	15.4	19.2
E	9.7	12.6	2.9	.1	.0		25.4	9.0	23.4	31.8	27.6	18.5
SE	7.1	8.6	1.3	.0	.0		17.0	8.3	24.8	17.0	12.2	12.3
S	4.3	2.5	.0	.0	.0		6.8	5.8	15.7	4.2	2.1	3.1
SW	1.7	1.8	.0	.0	.0		3.6	6.6	3.4	3.0	5.6	.8
W	3.1	1.5	.1	.0	.0		4.8	6.1	4.1	6.4	4.3	5.4
NW	4.5	1.5	.3	.1	.0		6.4	6.1	4.1	3.8	8.3	9.2
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0
CALM	13.1						13.1	.0	8.2	6.1	15.4	24.6
TOT OBS	193	138	25	2	0	358		7.0	110	66	117	65
TOT PCT	53.9	38.5	7.0	.6	.0		100.0		100.0	100.0	100.0	100.0

APRIL

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1871-1969AREA 0092 CAPE TALROT  
13.15 126.4E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	8.2	10.9	53.6	26.4	.9	.0	.0	.0	7.8	100.0	110
06009	6.1	12.1	59.1	22.7	.0	.0	.0	.0	7.7	100.0	66
12015	15.4	15.4	55.6	12.0	1.7	.0	.0	.0	6.2	100.0	117
18021	24.6	13.4	44.6	12.3	1.5	.0	.0	.0	6.1	100.0	65
TOT	47	48	192	66	4	1	0	7.0			358
PCT	13.1	13.4	53.6	18.4	1.1	.3	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.7	.0	1.0	1.5		4.4
NE	5.4	5.1	2.0	.5		2.7
E	13.0	1.7	1.0	.0		1.4
SE	10.5	1.0	.0	.0		.7
S	7.1	4.2	.0	.0		1.8
SW	5.4	2.7	.0	.0		1.3
W	5.6	.0	2.0	.0		1.8
NW	3.2	2.0	.0	.0		1.9
VAR	.0	.0	.0	.0		.0
CALM	21.0	1.0	1.0	.0		.7
TOT OBS	75	18	7	2	102	1.6
TOT PCT	73.5	17.6	6.9	2.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	1.5	.0	.0	.0	.0	.0	2.7	
NE	.0	.0	.0	.0	2.5	.0	.0	.0	.0	.0	10.5	
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.7	
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.5	
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.3	
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.1	
W	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	6.6	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	22.5	
TOT OBS	0	0	0	0	5	0	0	0	1	0	96	102
TOT PCT	.0	.0	.0	.0	4.9	.0	.0	.0	1.0	.0	94.1	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >4500	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
OR >4000	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
OR >3500	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
OR >3000	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
OR >2500	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
OR >2000	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
OR >1500	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
OR >1000	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
OR >500	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
OR >100	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
OR >0	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
TOTAL	6	6	6	6	6	6	6	6

TOTAL NUMBER OF OBS: 103

PCT FREQ NH &lt;5/8 94.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	42.6	30.6	8.3	7.4	5.6	3.7	.9	.9	.0	.0	108

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1871-1969

APRIL

AREA 0022 CAPE TALROT  
13.15 126.4E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VISBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	PCP	.4	1.6	1.2	.3	.0	.0	.3	.6	.0	.0	.4	
	NO PCP	5.3	9.6	16.3	11.4	3.5	1.0	2.2	3.1	.0	.0	4.4	56.8
	TOT %	5.7	11.2	17.4	11.7	3.5	1.0	2.5	3.7	.0	.0	4.4	61.2
10+	PCP	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3	
	NO PCP	1.4	5.5	7.4	4.9	3.7	2.6	2.4	2.7	.0	.0	7.9	38.5
	TOT %	1.4	5.5	7.7	4.9	3.7	2.6	2.4	2.7	.0	.0	7.9	38.8
TOT OBS													
TOT PCT													
		7.1	16.7	25.1	16.5	7.2	3.6	4.9	6.4	.0	12.4	100.0	340

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VISBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5<10	0-3	1.0	1.6	1.2	1.2	.7	.0	.9	1.0	.0	.0	4.4	12.1
	4-10	3.4	5.6	10.4	7.0	2.5	.9	1.2	2.1	.0	.0	32.9	
	11-21	1.2	3.7	5.6	3.5	.3	.1	.4	.4	.0	.0	15.3	
	22+	.1	.3	.3	.0	.0	.0	.0	.1	.0	.0	.9	
	TOT %	5.7	11.2	17.4	11.7	3.5	1.0	2.5	3.7	.0	.0	4.4	61.2
10+	0-3	.3	.7	2.0	.7	1.0	.8	.1	.6	.0	.0	7.9	14.1
	4-10	1.0	4.3	4.7	2.7	2.4	1.7	2.3	2.1	.0	.0	21.2	
	11-21	.1	.6	.7	1.5	.2	.1	.0	.0	.0	.0	3.2	
	22+	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3	
	TOT %	1.4	5.5	7.7	4.9	3.7	2.6	2.4	2.7	.0	.0	7.9	38.8
TOT OBS													
TOT PCT													
		7.1	16.7	25.1	16.5	7.2	3.6	4.9	6.4	.0	12.4	100.0	340

APRIL

PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1871-1969AREA 0022 CAPE TALBOT  
13.15 126.4E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	8.0	.0	.0	.0	.0	.0	8.0	92.0	25
06009	.0	.0	.0	.0	7.4	.0	.0	.0	.0	.0	7.4	92.6	27
12015	.0	.0	.0	.0	3.2	.0	.0	.0	.0	.0	3.2	96.8	31
18021	.0	.0	.0	.0	.0	.0	.0	.0	4.0	.0	4.0	96.0	25
TOT	0	0	0	0	5	0	0	0	1	0	6	102	108
PCT	.0	.0	.0	.0	4.6	.0	.0	.0	.9	.0	5.6	94.4	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	.0	65.7	34.3	105
06009	.0	.0	.0	.0	55.2	44.8	67
12015	.0	.0	.0	.0	67.5	32.5	126
18021	.0	.0	.0	.0	56.5	43.5	69
TOT	0	0	0	0	230	137	367
PCT	.0	.0	.0	.0	62.7	37.3	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	8.3	91.7	24
06009	.0	.0	.0	7.4	92.6	27
12015	.0	.0	.0	3.4	96.6	29
18021	.0	.0	.0	4.3	95.7	23
TOT	0	0	0	6	97	103
PCT	.0	.0	.0	5.8	94.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.4	.7	.7	.0	.0	5	1.8
89/89	.0	.4	1.4	4.7	8.3	13.4	6.1	.4	96	34.7
88/84	.0	.0	4.7	4.3	9.0	19.1	20.9	2.5	168	60.6
75/79	.0	.0	.0	.0	.0	1.1	.7	1.1	8	2.9
TOTAL	0	1	17	26	50	95	77	11	277	100.0
PCT	.0	.4	6.1	9.4	18.1	34.3	27.8	4.0		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90	.0	.1	1.2	.5	.0	.0	.0	.0	.0	.0
89	.0	5.1	9.0	6.4	2.7	.7	1.8	1.5	.0	4.7
88	.0	10.5	14.4	11.1	4.2	2.3	2.5	4.5	.0	6.1
75	.0	1.1	.9	.5	.0	.0	.0	.4	.0	.0
TOT	7.5	16.8	25.5	18.6	6.9	3.1	4.3	6.4	.0	10.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	91	90	89	84	81	78	78	84.2	111
06009	91	90	88	85	82	77	77	85.1	65
12015	88	87	87	84	80	76	75	83.6	128
18021	87	86	85	83	79	77	77	82.9	71
TOT	91	90	88	84	80	77	75	83.9	375

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	16.7	17.9	28.6	33.3	3.6	71	84
06009	.0	22.6	26.4	22.6	26.4	1.9	70	53
12015	.0	12.0	15.7	38.9	27.8	5.6	74	108
18021	.0	12.1	22.4	34.5	25.9	5.2	73	58
TOT	0	46	59	98	87	13	72	303



PERIOD: (PRIMARY) 1924-1969  
(OVER-ALL) 1871-1969

APRIL

AREA 0022 CAPE TALROT  
13.15 126.4E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WD FOG
9/10	.0	.0	.0	.0	.5	1	.0	.5
7/6	.0	.0	.0	.5	1.1	3	.0	1.6
6	.0	.0	.0	1.1	1.1	4	.0	2.1
5	.0	.0	.5	.5	1.1	4	.0	2.1
4	.0	.0	.5	1.1	.5	4	.0	2.1
3	.0	.0	1.6	5.3	.0	13	.5	6.3
2	.0	.5	4.2	3.2	1.1	17	.0	8.9
1	.0	.5	6.8	3.2	.0	20	1.1	9.5
0	.0	1.6	14.2	3.7	.0	37	1.1	18.4
-1	.0	.0	14.2	4.7	.0	36	.5	18.4
-2	.0	2.1	4.2	3.2	.0	18	.5	8.9
-3	.0	.5	3.7	3.7	.0	15	.0	7.9
-4	.5	1.1	3.7	.0	.0	10	.0	5.3
-5	.0	.5	3.2	.0	.0	7	.0	3.7
-6	.0	.0	.5	.0	.0	1	.0	.5
TOTAL	1	13	57	10	190	7	183	
PCT	.5	6.8	57.4	30.0	5.3	100.0	3.7	96.3

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	1.5	.0	.0	.0	.0	.0	1.5	1.8	2.9	.0	.0	.0	.0	4.8
1-2	.0	1.1	.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	.0	7.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	2.9	1.5	.0	.0	.0	.0	4.4
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.5	1.1	.0	.0	.0	.0	2.6	1.8	13.6	1.5	.0	.0	.0	16.9

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	4.0	1.5	.0	.0	.0	.0	5.5	.4	1.5	.0	.0	.0	.0	1.8
1-2	.0	11.0	.0	.0	.0	.0	11.0	.0	4.8	.0	.0	.0	.0	4.8
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.9	.0	.0	.0	2.9
5-6	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0	.0	.0	.0	1.5
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0	.0	.0	1.5
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	4.0	12.5	.0	.0	.0	.0	16.5	.4	7.7	4.4	.0	.0	.0	12.5

PERIOD: (OVER-ALL) 1963-1969

APRIL

AREA 0022 CAPE TALBOT  
13.15 126.4E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	1.1	4.4	.0	.0	.0	.0		5.5	.0	.0	.0	.0	.0	.0		.0	
1-2	1.5	2.6	.0	.0	.0	.0		4.0	.0	3.3	.0	.0	.0	.0		3.3	
3-4	.0	.0	1.1	.0	.0	.0		1.1	.0	1.5	.4	.0	.0	.0		1.8	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	2.6	7.0	1.1	.0	.0	.0		10.7	.0	4.8	.4	.0	.0	.0		5.1	

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	1.5	.0	.0	.0	.0		1.5	.0	1.5	.0	.0	.0	.0		1.5	
1-2	.0	2.9	.0	.0	.0	.0		2.9	.0	.4	.0	.0	.0	.0		.4	
3-4	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	
TOT PCT	.0	4.4	.0	.0	.0	.0		4.4	.0	1.8	.0	.0	.0	.0		1.8	70.6

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	38.6	12.9	.0	.0	.0	.0	51.4	
1-2	2.9	32.9	.0	.0	.0	.0	35.7	
3-4	.0	1.4	4.3	.0	.0	.0	5.7	
5-6	.0	4.3	1.4	.0	.0	.0	5.7	
7	.0	.0	1.4	.0	.0	.0	1.4	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	41.4	51.4	7.1	.0	.0	.0	100.0	70

PERIOD: (OVER-ALL) 1964-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	8.5	32.4	7.0	4.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	2
6-7	1.4	2.8	5.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	2
8-9	1.4	1.4	1.4	1.4	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	3
10-11	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	28.2	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	0
TOTAL	28	27	11	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	71	2
PCT	39.4	38.0	15.5	5.6	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1891-1969  
(OVER-ALL) 1858-1969

MAY

AREA 0022 CAPE TALEOT  
13.15 125.88

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	7.3	.0	.0	.0	.0	.0	.0	7.3	.0	.0	.0	.0	.0	.0	92.7	
NE	2.1	.0	.0	.0	.0	.0	.0	2.1	.0	2.5	.0	.0	3.7	.0	92.9	
E	.3	.9	.0	.0	.0	.0	.0	1.2	.0	.9	.6	.0	1.8	.0	95.7	
SE	.7	.3	.7	.0	.0	.0	.0	1.7	.0	.3	.0	.0	4.8	.0	93.5	
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	.0	.0	4.0	.0	93.0	
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	.0	.0	97.9	
W	.0	7.1	.0	.0	.0	.0	.0	7.1	.0	.0	7.1	.0	.0	.0	85.7	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
TOT PCT	.8	.6	.2	.0	.0	.0	.0	1.6	.0	1.2	.4	.0	2.7	.0	94.4	
TOT OBS:	516															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00603	.6	.6	.0	.0	.0	.0	.0	1.3	.0	.0	.6	.0	1.9	.0	96.2
06609	.0	1.1	.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	2.1	.0	96.8
12615	1.1	1.1	.5	.0	.0	.0	.0	2.7	.0	2.2	1.1	.0	4.4	.0	90.1
18621	1.8	.0	.0	.0	.0	.0	.0	1.8	.0	3.7	.0	.0	.9	.0	93.6
TOT PCT	.9	.7	.2	.0	.0	.0	.0	1.8	.0	1.5	.6	.0	2.6	.0	93.8
TOT OBS:	544														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.2	2.1	.1	.0	.0	.0		2.4	6.7		2.6	1.5	6.6	3.7	2.8	.0	3.4	.0
NE	3.4	11.8	1.9	.0	.0	.0		17.0	7.0		6.9	5.9	11.2	30.6	28.0	30.4	4.8	12.2
E	4.6	19.8	6.5	.8	.0	.0		31.6	8.3		26.3	36.8	36.8	34.3	27.8	40.6	19.7	36.7
SE	4.7	15.1	6.3	1.3	.0	.0		27.4	8.5		39.8	41.2	23.7	13.9	19.7	13.0	32.2	33.7
S	3.7	5.1	.6	.0	.0	.0		9.4	5.3		17.3	13.2	7.9	2.8	6.0	6.5	11.1	6.1
SW	1.6	2.7	.2	.0	.0	.0		4.5	5.1		2.0	.7	8.6	9.3	3.9	3.6	5.8	7.1
W	1.9	.7	.0	.0	.0	.0		2.6	3.9		1.0	.0	.0	4.6	4.1	4.3	3.8	2.0
NW	.2	.7	.0	.0	.0	.0		.8	5.0		.0	.7	.0	.9	1.4	.0	3.8	.0
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.3							4.3	.0		4.1	.0	5.3	.0	6.4	1.4	15.4	2.0
TOT OBS	131	311	84	11	0	0		537	7.2		98	68	38	54	109	69	52	49
TOT PCT	24.4	57.9	15.6	2.0	.0	.0			100.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	1.2	1.2	.0	.0	.0			2.4	6.7		2.1	4.9	1.7
NE	8.2	8.4	.5	.0	.0			17.0	7.0		6.5	22.6	28.9
E	12.3	17.7	1.4	.2	.0			31.6	8.3		30.6	35.3	32.7
SE	11.9	13.2	2.3	.0	.0			27.4	8.5		40.4	17.9	17.1
S	6.2	3.2	.0	.0	.0			9.4	5.3		15.7	4.9	6.2
SW	3.3	1.2	.0	.0	.0			4.5	5.1		1.5	9.0	3.8
W	1.9	.7	.0	.0	.0			2.6	3.9		.0	2.7	4.2
NW	.7	.2	.0	.0	.0			.8	5.0		.3	.5	.8
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0
CALM	4.3							4.3	.0		2.4	2.2	4.5
TOT OBS	268	246	22	1	0			537	7.2		166	92	178
TOT PCT	49.9	45.8	4.1	.2	.0				100.0		100.0	100.0	100.0

AREA 0022 CAPE TALBOT  
13.15 125.8E

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND			SPEED (KNOTS)			48+	MEAN	PCT FREQ	TOTAL DBS
		1-3	4-10	11-21	22-33	34-47					
00603	2.4	24.1	55.4	13.9	4.2	.0	.0	7.3	100.0	166	
06129	2.2	19.6	50.0	12.1	7.2	.0	.0	8.1	100.0	92	
12619	4.5	18.5	64.4	26.9	.0	.0	.0	6.1	100.0	178	
18621	8.9	16.6	58.4	13.9	.0	.0	.0	6.9	100.0	91	
TOT	2.3	20.8	51.1	84	11.0	.0	.0	7.2		537	
PCT	4.3	20.1	57.9	15.6	2.0	.0	.0	100.0			

TABLE 6

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH  $\geq 4/8$ )  
AND OCCURRENCE OF NH  $\leq 5/8$  BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+ ANY	<5/8 HGT	TOTAL OBS
N	2.2	.7	.6	1.2	3.4	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.7	3.5	
NE	8.6	.0	.0	1.2	3.7	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	9.2	
E	17.1	2.0	2.4	1.7	1.9	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	2.4	20.2	
SE	18.0	3.9	2.4	2.8	2.2	.0	.0	.0	.2	1.5	.7	.0	.0	.0	.0	1.1	23.5	
S	10.8	.0	.0	.7	.9	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	10.8	
SW	4.8	1.5	.0	.0	1.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.3	
W	2.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	
NW	2.2	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	11.8	.7	.0	.7	.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	
TOT OBS	100	12	R		136	1.5	.0	.0	.2	3	1	.0	.0	.0	.0	.7	12.5	
TOT PCT	77.9	8.8	5.9	7.4	100.0		.0	.0	1.5	2.2	.7	.0	.0	.0	.0	5.1	90.4	136

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH > 4/8) AND VSBY (NM)

CFILING (FEET)	VSBY (NM)							
	OR >10	OR >5	OR >2	OR >1	OR >1/2	OR >1/4	OR >50YD	OR >0
OR >5000	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
OR >5000	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
OR >3500	5.1	5.1	5.1	5.1	5.1	5.1	5.1	5.1
OR >2000	5.1	5.8	5.8	5.8	5.8	5.8	5.8	5.8
OR >1000	8.0	8.8	8.8	8.8	8.8	8.8	8.8	8.8
OR >600	8.8	10.2	10.2	10.2	10.2	10.2	10.2	10.2
OR >300	8.8	10.2	10.2	10.2	10.2	10.2	10.2	10.2
OR >150	8.8	10.2	10.2	10.2	10.2	10.2	10.2	10.2
OR > 0	8.8	10.2	10.2	10.2	10.2	10.2	10.2	10.2
TOTAL	12	14	14	14	14	14	14	14

TOTAL NUMBER OF OBS: 137

PCT FREQ NH <5/81 89.8

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL OBS
54.5	17.5	9.1	4.9	2.1	1.4	2.8	.7	7.0	.0	143

PERIOD: (PRIMARY) 1891-1969  
(OVER-ALL) 1858-1969

MAY

AREA 0022 CAPE TALROT  
13.15 125.8E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.1	.1	.2	.0	.0	.0	.0	.4
	TOT %	.0	.0	.0	.0	.1	.1	.2	.0	.0	.0	.0	.4
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.6	.5	1.3	.4	.0	.0	.0	.0	.0	.0	2.7
	TOT %	.0	.6	.5	1.3	.4	.0	.0	.0	.0	.0	.0	2.7
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5<10	PCP	.1	.3	.4	.1	.0	.0	.2	.0	.0	.0	.0	1.2
	NO PCP	.6	12.0	19.6	16.7	5.9	2.9	1.7	.3	.0	.8	.8	60.5
	TOT %	.7	12.4	20.0	16.8	5.9	2.9	1.9	.3	.0	.8	.8	61.6
10+	PCP	.0	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.4
	NO PCP	1.3	2.9	11.1	9.8	3.3	1.6	.6	.6	.0	3.5	3.5	34.7
	TOT %	1.3	2.9	11.1	10.2	3.3	1.6	.6	.6	.0	3.5	3.5	35.1
TOT OBS													
TOT PCT													
		2.0	15.8	31.7	28.2	9.7	4.7	2.7	.9	.0	4.3	100.0	516

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2
1/2<1	0-3	.0	.0	.0	.0	.1	.1	.2	.0	.0	.0	.0	.4
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.1	.1	.2	.0	.0	.0	.0	.4
1<2	0-3	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.2
	4-10	.0	.2	.4	.0	.4	.0	.0	.0	.0	.0	.0	1.0
	11-21	.0	.2	.1	1.1	.0	.0	.0	.0	.0	.0	.0	1.4
	22+	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2
	TOT %	.0	.6	.5	1.3	.4	.0	.0	.0	.0	.0	.0	2.7
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5<10	0-3	.2	3.1	3.6	3.4	3.1	1.6	1.7	.2	.0	.8	.8	17.6
	4-10	.4	8.4	13.5	10.9	2.5	1.4	.2	.1	.0	.0	.0	37.4
	11-21	.1	.9	2.9	2.4	.3	.0	.0	.0	.0	.0	.0	6.6
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.7	12.4	20.0	16.8	5.9	2.9	1.9	.3	.0	.8	.8	61.6
10+	0-3	.0	.2	1.2	1.5	.6	.0	.0	.0	.0	3.5	7.0	7.0
	4-10	1.3	2.3	5.9	4.8	2.4	1.4	.6	.6	.0	.0	.0	19.2
	11-21	.0	.3	3.2	2.8	.3	.2	.0	.0	.0	.0	.0	7.0
	22+	.0	.0	.8	1.1	.0	.0	.0	.0	.0	.0	.0	1.9
	TOT %	1.3	2.9	11.1	10.2	3.3	1.6	.6	.6	.0	3.5	3.5	35.1
TOT OBS													
TOT PCT													
		2.0	15.8	31.7	28.2	9.7	4.7	2.7	.9	.0	4.3	100.0	516



MAY

PERIOD: (PRIMARY) 1891-1969  
(OVER-ALL) 1858-1969AREA 0022 CAPE TALBOT  
13.15 125.8E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HR	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <4/8 ANY HGT	TOTAL DBS
(GMT)	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.0	.0	7.4	.0	.0	.0	.0	.0	.0	7.4	92.6	27
06009	.0	.0	.0	.0	6.3	.0	.0	.0	.0	9.4	15.6	84.4	32
12015	.0	.0	.0	.0	2.4	.0	.0	.0	.0	9.8	12.2	87.8	41
18021	.0	.0	.0	.0	2.5	2.5	.0	.0	.0	.0	5.0	95.0	40
TOT	0	0	0	2	4	1	0	0	0	7	14	126	140
PCT	.0	.0	.0	1.4	2.9	.7	.0	.0	.0	5.0	10.0	90.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HR	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL
(GMT)							DBS
00003	.6	.0	1.9	.0	70.3	27.2	158
06009	.0	.0	2.1	.0	56.8	41.1	95
12015	.0	1.6	4.4	.0	62.1	31.9	182
18021	.0	.0	.9	.0	56.9	42.2	109
TOT	1	3	14	0	340	186	544
PCT	.2	.6	2.6	.0	62.5	34.2	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HR	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL
(GMT)						DBS
00003	.0	.0	7.7	.0	92.3	26
06009	.0	.0	.0	15.6	84.4	32
12015	.0	.0	.0	12.2	87.8	41
18021	.0	.0	.0	5.3	94.7	38
TOT	0	0	2	12	123	137
PCT	.0	.0	1.5	8.8	89.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL	PCT
									DBS	FREQ
90/94	.0	.0	.0	.0	.4	.0	.0	.0	1	.5
85/89	.0	.0	.5	3.3	2.8	2.8	1.4	.0	23	10.7
80/84	.0	.9	4.7	9.3	19.5	21.9	12.6	3.3	150	72.1
75/79	.0	.5	2.7	6.0	2.8	3.3	.5	.5	34	15.8
70/74	.0	.0	.0	.4	.0	.0	.5	.0	2	.9
TOTAL	0	3	16	41	55	60	32	8	215	100.0
PCT	.0	1.4	7.4	19.1	25.6	27.9	14.9	3.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90/94	.0	.0	.5	.0	.0	.0	.0	.0	.0	.0
85/89	.0	.6	3.7	4.3	.7	.5	.0	.0	.0	.9
80/84	2.0	4.7	25.0	25.7	4.5	.9	1.4	.5	.0	7.4
75/79	.7	.7	4.5	7.6	1.9	.0	.0	.0	.0	.5
70/74	.0	.0	.5	.2	.2	.0	.0	.0	.0	.0
TOTAL	2.7	5.9	34.2	37.8	7.3	1.4	1.4	.5	.0	8.8

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HR	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL
(GMT)									DBS
00003	91	89	86	82	76	73	70	81.8	163
06009	90	89	87	83	78	75	75	83.3	92
12015	86	85	84	82	79	76	76	81.6	180
18021	85	84	84	81	77	75	75	81.1	106
TOT	91	87	85	82	77	75	70	81.8	541

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HR	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL
(GMT)										DBS
00003	.0	23.2	28.6	17.9	21.4	8.9	70	56		
06009	.0	40.5	19.0	21.4	16.7	2.4	55	42		
12015	.0	23.1	24.4	32.1	16.7	3.8	70	78		
18021	.0	21.4	23.2	37.5	16.1	1.8	70	56		
TOT	0	60	56	65	41	10	59	232		

PERIOD: (PRIMARY) 1891-1969  
(OVER-ALL) 1898-1969

MAY

AREA 0022 CAPE TALBOT  
13.15 125.8E

TABLE 17

PCT FRQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73 76	77 80	81 84	85 88	89 92	TOT	W FOG	WD FOG
9/10	.0	.0	.0	.0	.5	2	.0	.5
6	.0	.2	.0	.5	.5	5	.0	1.2
5	.0	.2	.5	1.4	.0	9	.0	2.1
4	.0	.2	.2	.9	.2	7	.0	1.6
3	.0	.2	2.1	1.2	.0	15	.0	3.5
2	.0	.0	3.7	3.5	.0	31	.2	6.9
1	.0	.2	14.1	3.2	.0	76	.0	17.6
0	.0	.9	20.6	.9	.0	97	.2	22.2
-1	.0	5.8	12.7	.0	.0	80	.0	18.5
-2	.0	3.7	6.9	.2	.0	47	.2	10.4
-3	.2	3.7	3.9	.0	.0	34	.0	7.9
-4	.9	1.2	.7	.0	.0	12	.0	2.3
-5	.5	1.8	.9	.0	.0	14	.0	3.2
-6	.0	.2	.0	.0	.0	1	.0	.2
-7/-8	.0	.7	.0	.0	.0	3	.0	.7
TOTAL	7	83	51	433	3	433	.7	430
PCT	1.6	19.2	66.3	11.8	1.2	100.0	.7	99.3

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FRQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.8	.0	.0	.0	.0	1.8	1.0	4.3	.0	.0	.0	.0	5.3
1-2	.0	3.3	.0	.0	.0	.0	3.3	.0	1.0	1.5	.0	.0	.0	2.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.1	.0	.0	.0	.0	5.1	1.0	5.3	1.8	.0	.0	.0	8.1

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	1.0	1.0	.0	.0	.0	2.0	1.5	2.3	.0	.0	.0	.0	3.8
1-2	.0	5.8	1.5	.0	.0	.0	7.3	.0	6.3	2.0	.0	.0	.0	8.3
3-4	.0	2.0	5.3	1.0	.0	.0	8.3	.0	3.3	2.5	.0	.0	.0	5.8
5-6	.0	1.0	2.8	1.0	.0	.0	4.8	.0	.0	4.3	.0	.0	.0	4.3
7	.0	.0	.8	.0	.0	.0	.8	.0	.0	2.3	2.0	.0	.0	4.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	1.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	1.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	9.8	11.4	2.0	.0	.0	23.2	1.5	11.9	11.1	4.0	.0	.0	28.5

PERIOD: (OVER-ALL) 1963-1969

MAY

AREA 0022 CAPE TALBOT  
13.15 125.8E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.5	2.8	.0	.0	.0	.0	5.3	.0	1.0	.0	.0	.0	.0	1.0
1-2	.0	1.8	.0	.0	.0	.0	1.8	.0	1.0	.0	.0	.0	.0	1.0
3-4	.0	1.8	.0	.0	.0	.0	1.8	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.8	.0	.0	.0	.8	.0	1.0	1.3	.0	.0	.0	2.3
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.5	6.3	.8	.0	.0	.0	9.6	.0	3.0	1.3	.0	.0	.0	4.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.0	.0	.0	.0	.0	1.0	.0	1.0	.0	.0	.0	.0	1.0	
1-2	.0	1.0	.0	.0	.0	.0	1.0	.0	2.0	.0	.0	.0	.0	2.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	2.0	.0	.0	.0	.0	2.0	.0	3.0	.0	.0	.0	.0	3.0	83.8

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	21.2	15.2	1.0	.0	.0	.0	37.4	
1-2	.0	22.2	5.1	.0	.0	.0	27.3	
3-4	.0	7.1	8.1	1.0	.0	.0	16.2	
5-6	.0	2.0	9.1	1.0	.0	.0	12.1	
7	.0	.0	3.0	2.0	.0	.0	5.1	
8-9	.0	.0	.0	1.0	.0	.0	1.0	
10-11	.0	.0	.0	1.0	.0	.0	1.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	21.2	46.5	26.3	6.1	.0	.0	100.0	99

PERIOD: (OVER-ALL) 1965-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	9.1	16.2	9.1	7.1	2.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	45	3
6-7	.0	4.0	5.1	8.1	4.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	5
8-9	.0	.0	1.0	3.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	5
10-11	.0	1.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	3
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	3
INDFT	24.2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	24	0
TOTAL	33	21	16	19	7	2	1	0	0	0	0	0	0	0	0	0	0	0	0	99	3
PCT	33.3	21.2	16.2	19.2	7.1	2.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

JUNE

PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1871-1969AREA 0022 CAPE TALROT  
13.35 126.48

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRIZ	FRIZ PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.7	.0	3.2	.0	84.1
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2	6.0	.0	2.4	.0	90.4
E	.0	1.0	.0	.0	.0	.0	.0	1.0	.0	.0	1.8	.0	2.6	.0	94.5
SE	.6	.0	.0	.0	.0	.0	.0	.6	.0	.3	2.4	.0	.6	.0	96.1
S	1.4	.0	.0	.0	.0	.0	.0	1.4	.0	.7	2.0	.0	1.4	.0	94.0
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	.0	2.1	.0	95.9
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.8	.0	.0	.0	85.2
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9	4.9	.0	.0	.0	90.2
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.3	.3	.0	.0	.0	.0	.0	.0	.0	.6	3.4	.0	1.6	.0	93.8
TOT OBS:	574														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRIZ	FRIZ PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00103	.9	.0	.0	.0	.0	.0	.0	.9	.0	.0	2.6	.0	1.8	.0	94.7
06009	.0	.8	.0	.0	.0	.0	.0	.8	.0	.0	4.8	.0	4.0	.0	89.7
12615	.0	.4	.0	.0	.0	.0	.0	.4	.0	.8	4.7	.0	.8	.0	93.3
18621	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	2.9	.0	.7	.0	95.6
TOT PCT	.3	.3	.0	.0	.0	.0	.0	.5	.0	.5	3.8	.0	1.6	.0	93.5
TOT OBS:	743														

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	2.8	1.7	.1	.0	.0	.0		4.6	3.7		.9	.5	8.5	8.3	8.0	6.0	3.3
NE	5.0	6.5	.6	.0	.0	.0		12.1	5.5		4.8	9.5	15.6	21.2	17.4	13.3	7.9
E	3.4	17.2	8.1	.3	.0	.0		29.0	9.3		34.0	34.5	28.3	37.1	23.9	28.8	15.8
SE	5.2	14.4	4.8	.4	.0	.0		24.7	7.5		30.3	30.3	26.4	19.6	18.8	22.5	25.4
S	4.0	6.3	.4	.1	.0	.0		10.8	5.5		18.4	15.3	8.0	3.0	5.5	8.0	16.7
SW	3.9	3.3	.0	.0	.0	.0		7.3	3.8		6.4	6.8	2.8	9.8	6.1	6.0	9.2
W	1.8	2.1	.0	.0	.0	.0		3.9	4.0		.0	1.6	.9	3.8	6.1	9.0	7.5
NW	1.5	1.5	.0	.0	.0	.0		3.0	3.6		1.8	.5	3.8	3.0	6.8	3.5	1.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0
CALM	4.5							4.5	.0		3.5	1.1	5.7	.0	7.6	3.0	13.3
TOT OBS	221	364	96	5	0	0	686		6.5		114	95	53	66	132	100	60
TOT PCT	32.2	53.1	14.0	.7	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40	41+						00	03	06	12
N	4.1	.5	.0	.0	.0			4.6	3.7		.7	8.4	7.1	2.8
NE	7.7	4.4	.1	.0	.0			12.1	5.5		6.9	18.7	15.6	8.1
E	7.7	18.8	2.5	.0	.0			29.0	9.3		34.2	33.2	28.0	22.2
SE	12.5	10.8	1.5	.0	.0			24.7	7.5		30.3	19.3	20.4	28.8
S	7.1	3.5	.2	.0	.0			10.8	5.5		17.0	5.3	6.6	13.5
SW	6.5	.8	.0	.0	.0			7.3	3.8		6.6	6.7	6.0	11.1
W	3.4	.5	.0	.0	.0			3.9	4.0		.7	2.5	7.3	6.4
NW	2.8	.1	.0	.0	.0			3.0	3.6		1.2	3.4	5.4	1.2
VAR	.0	.0	.0	.0	.0			.0	.0		.0	.0	.0	.0
CALM	4.5							4.5	.0		2.4	2.5	5.6	7.9
TOT OBS	386	271	29	0	0	686			6.5		209	119	232	126
TOT PCT	56.3	39.5	4.2	.0	.0			100.0			100.0	100.0	100.0	100.0

JUNE

PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1871-1969AREA 0022 CAPE TALROT  
13.95 126.4E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
0000	2.4	23.9	56.5	16.7	.5	.0	.0	7.2	100.0	209
0600	2.5	33.6	47.1	16.0	.8	.0	.0	6.5	100.0	119
1200	5.6	29.3	53.4	11.6	.0	.0	.0	5.9	100.0	232
1800	7.9	25.4	52.4	11.9	2.4	.0	.0	6.5	100.0	126
TOT	31	190	364	96	5	0	0	6.5		686
PCT	4.5	27.7	53.1	14.0	.7	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 E	TOTAL OBS	MEAN CLOUD COVER
N	.0	.0	.0	.0	.0	.0
NE	8.7	.0	1.2	1.0	1.8	1.8
E	27.4	1.0	4.6	.0	1.3	1.3
SE	20.9	3.9	1.9	1.0	1.7	1.7
S	6.8	1.0	.0	.0	1.1	1.1
SW	2.2	1.0	1.0	.0	2.7	2.7
W	1.0	.0	.0	.0	.0	.0
NW	1.0	.0	.0	.0	.0	.0
VAR	.0	.0	.0	.0	.0	.0
CALM	10.7	1.0	2.9	.0	1.5	1.5
TOT OBS	81	8	12	2	103	1.5
TOT PCT	78.6	7.8	11.7	1.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
NE	.0	.0	.0	1.0	.2	.0	.0	.0	.0	.0	.0	9.7
E	.0	.0	.0	.0	1.7	1.0	.0	.0	.0	.0	1.0	29.4
SE	.0	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	26.7
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.8
SW	.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	3.2
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	1.0	.0	.0	.0	.0	1.0	12.6	
TOT OBS	0	0	0	1	4	2	0	0	0	2	94	103
TOT PCT	.0	.0	.0	1.0	3.9	1.9	.0	.0	.0	1.9	91.3	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
>4000	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
>3500	1.9	1.9	1.9	1.9	1.9	1.9	1.9	1.9
>3000	3.8	3.8	3.8	3.8	3.8	3.8	3.8	3.8
>2500	6.7	6.7	6.7	6.7	6.7	6.7	6.7	6.7
>2000	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
>1500	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
>1000	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
>500	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
>0	7.6	7.6	7.6	7.6	7.6	7.6	7.6	7.6
TOTAL	8	8	9	9	9	9	9	9

TOTAL NUMBER OF OBS: 105

PCT FREQ NH &lt;5/8: 91.4

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
53.2	14.2	17.1	3.6	1.8	4.5	1.8	1.8	.0	.0	111



PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1871-1969

JUNE

AREA 0022 CAPE TALBOT  
13.35 126.4E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.1
	TOT %	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.1
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.6	.7	.2	.3	.2	.0	.6	.3	.0	.0	.0	3.0
	TOT %	.6	.7	.2	.3	.2	.0	.6	.3	.0	.0	.0	3.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.1	.3	.7	.0	.1	.1	.0	.0	.0	.0	.0	1.5
	TOT %	.1	.3	.7	.0	.1	.1	.0	.0	.0	.0	.0	1.5
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.5	.1	.0	.1	.0	.0	.0	.0	.0	.7
	TOT %	.0	.0	.5	.1	.0	.1	.0	.0	.0	.0	.0	.7
5<10	PCP	.0	.0	.3	.1	.1	.0	.0	.0	.0	.0	.0	.6
	NO PCP	3.9	8.9	18.2	17.1	8.3	5.9	3.0	2.5	.0	1.6	69.6	
	TOT %	3.9	8.9	18.5	17.3	8.5	5.9	3.0	2.5	.0	1.6	70.2	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	2.3	8.4	7.1	2.2	1.0	.4	.2	.0	2.8	24.5	
	TOT %	.0	2.3	8.4	7.1	2.2	1.0	.4	.2	.0	2.8	24.5	
TOT OBS													674
TOT PCT		4.7	12.3	28.5	24.8	11.0	7.2	4.0	3.0	.0	4.5	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.1
1/2<1	0-3	.4	.4	.1	.2	.2	.0	.3	.1	.0	.0	1.9	
	4-10	.1	.3	.0	.0	.0	.0	.3	.1	.0	.0	.9	
	11-21	.0	.0	.1	.1	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.6	.7	.2	.3	.2	.0	.6	.3	.0	.0	3.0	
1<2	0-3	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	4-10	.1	.2	.5	.0	.1	.1	.0	.0	.0	.0	1.2	
	11-21	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.3	.7	.0	.1	.1	.0	.0	.0	.0	1.5	
2<5	0-3	.0	.0	.0	.0	.0	.3	.0	.0	.0	.0	.3	
	4-10	.0	.0	.3	.0	.0	.0	.0	.0	.0	.0	.3	
	11-21	.0	.0	.2	.1	.0	.0	.0	.0	.0	.0	.3	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.5	.1	.0	.3	.0	.0	.0	.0	.9	
5<10	0-3	2.4	4.1	2.1	4.1	3.3	3.4	1.5	1.3	.0	1.6	23.7	
	4-10	1.4	4.8	12.1	10.4	4.8	2.5	1.5	1.2	.0		38.7	
	11-21	.1	.1	4.1	2.6	.3	.0	.0	.0	.0		7.3	
	22+	.0	.0	.1	.2	.1	.0	.0	.0	.0	.0	.4	
	TOT %	3.9	8.9	18.5	17.3	8.4	5.9	3.0	2.5	.0	1.6	70.1	
10+	0-3	.0	.6	.7	.8	.6	.3	.1	.1	.0	2.8	5.9	
	4-10	.0	1.3	4.6	4.3	1.4	.7	.4	.1	.0		12.9	
	11-21	.0	.4	3.1	1.8	.1	.0	.0	.0	.0		5.5	
	22+	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.0	2.3	8.4	7.1	2.1	1.0	.4	.2	.0	2.8	24.4	
TOT OBS													675
TOT PCT		4.7	12.3	28.4	24.8	11.0	7.4	4.0	3.0	.0	4.4	100.0	

JUNE

PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1871-1969AREA 0022 CAPE TALBOT  
13.35 126.4E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00603	.0	.0	.0	3.6	.0	3.6	.0	.0	.0	.0	7.1	92.9	28
06609	.0	.0	.0	.0	4.5	4.5	.0	.0	.0	.0	9.1	90.9	22
12615	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.0	3.0	97.0	33
18621	.0	.0	.0	.0	10.7	.0	.0	.0	.0	3.6	14.3	85.7	28
TOT	0	0	0	1	4	2	0	0	0	2	9	102	111
PCT	.0	.0	.0	.9	3.6	1.8	.0	.0	.0	1.8	8.1	91.9	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00603	.0	2.6	1.8	.0	72.7	22.9	727
06609	.0	4.7	3.9	.8	64.6	26.0	127
12615	.4	4.0	.8	1.6	73.9	19.4	253
18621	.0	2.2	.0	.7	69.3	27.7	137
TOT	1	25	11	6	529	172	744
PCT	.1	3.4	1.5	.8	71.1	23.1	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND5+	NH <5/8 AND 5+	TOTAL OBS
00603	.0	.0	3.7	3.7	92.6	27
06609	.0	.0	.0	9.5	90.5	21
12615	.0	.0	3.2	3.2	93.5	31
18621	.0	.0	3.8	11.5	84.6	26
TOT	0	0	3	7	95	105
PCT	.0	.0	2.9	6.7	90.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.4	.0	.4	.4	.4	.0	.4	.0	5	1.8
80/84	.0	.4	2.1	8.5	10.6	15.2	5.3	.4	120	42.6
75/79	.0	.7	4.3	8.5	13.5	14.9	4.6	2.1	137	48.6
70/74	.0	.0	1.1	2.8	1.1	.7	1.1	.0	19	6.7
65/69	.0	.0	.0	.4	.0	.0	.0	.0	1	.4
TOTAL	1	3	22	58	72	87	32	7	282	100.0
PCT	.4	1.1	7.8	20.6	25.5	30.9	11.3	2.5		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.4	.5	.2	.2	.2	.0	.0	.0	.4
1.6	3.2	16.0	11.9	2.3	1.3	.9	.7	.0	4.6
2.1	1.4	14.8	15.9	5.0	1.8	2.7	1.8	.0	3.2
.0	.5	2.3	1.8	.7	.4	.0	.0	.0	1.1
.0	.0	.0	.0	.0	.0	.4	.0	.0	.0
3.7	5.5	33.7	29.7	8.2	3.6	3.9	2.5	.0	9.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00603	90	87	83	79	72	67	66	78.3	229
06609	88	85	84	81	75	74	74	80.5	127
12615	87	84	82	79	75	72	70	79.0	255
18621	83	82	81	79	73	69	69	78.1	138
TOT	90	85	83	79	74	70	66	79.0	749

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00603	1.2	32.9	20.0	25.9	17.6	2.4	57	85		
06609	.0	33.3	35.4	25.0	6.3	.0	54	48		
12615	.0	24.3	26.1	36.9	9.0	3.6	58	111		
18621	.0	23.4	23.4	34.4	12.5	6.3	69	64		
TOT	1	86	78	97	36	10	57	308		

JUNE

PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1871-1969AREA 0022 CAPE TALROT  
13.35 126.46

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	TOT FOG	W FOG	WD FOG
11/13	.0	.0	.0	.0	.2	.0	.0	1	.0	.2
9/10	.0	.0	.0	.2	.0	.0	.2	2	.0	.3
7/8	.0	.0	.0	.8	.5	.0	.0	8	.0	1.4
6	.0	.0	.2	.7	.0	.2	.0	6	.0	1.0
5	.0	.0	.0	.2	.3	.3	.0	5	.0	.8
4	.0	.0	.0	.2	1.5	.2	.2	12	.2	1.9
3	.0	.0	.0	1.0	1.9	.2	.0	18	.5	2.5
2	.0	.0	.2	1.0	3.6	.3	.0	30	.5	4.6
1	.0	.2	.7	3.9	8.1	.2	.0	77	1.2	11.9
0	.0	.2	.5	10.7	9.2	.0	.0	121	1.0	19.5
-1	.0	.0	3.2	9.3	4.8	.0	.0	102	.5	16.8
-2	.0	.0	3.4	11.2	1.9	.0	.0	97	.5	16.0
-3	.0	.0	3.2	5.4	.5	.0	.0	54	.2	9.0
-4	.0	.5	2.5	1.4	.0	.0	.0	26	.0	4.4
-5	.0	.7	1.7	.3	.0	.0	.0	16	.2	2.5
-6	.0	.3	.2	.0	.0	.0	.0	3	.0	.5
-7/-8	.0	.7	.0	.3	.0	.0	.0	6	.0	1.0
-9/-10	.2	.3	.0	.0	.0	.0	.0	3	.0	.5
-11/-13	.3	.0	.0	.0	.0	.0	.0	2	.0	.3
TOTAL	3		93		191		2	589	28	561
PCT	.5	2.9	15.8	46.7	32.4	1.4	.3	100.0	4.8	95.2

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	.0	1.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	1.7
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.7	.0	.0	.0	.7
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.3	.0	.0	.0	.3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	1.7	2.7	.0	.0	.0	4.5

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.4	.0	.0	.0	.0	.0	1.4	2.7	5.3	1.4	.0	.0	.0	9.6
1-2	.0	5.8	6.5	.0	.0	.0	12.3	.0	6.8	.7	.0	.0	.0	7.5
3-4	.0	3.8	6.2	.0	.0	.0	9.9	.0	4.3	7.2	1.4	.0	.0	13.0
5-6	.0	.0	5.8	.0	.0	.0	5.8	.0	.0	.3	.0	.0	.0	.3
7	.0	.0	2.4	.0	.0	.0	2.4	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	1.4	.0	.0	.0	1.4	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	9.6	22.3	.0	.0	.0	33.2	2.7	16.8	9.6	1.4	.0	.0	30.5

PERIOD: (OVER-ALL) 1963-1969

JUNE

AREA 0022 CAPE TALBOT  
13.35 126.4E

TABLE 16 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	1.4	.0	.0	.0	.0	.0	1.4
1-2	1.4	4.5	1.0	.0	.0	.0	6.8	.0	.3	.0	.0	.0	.0	.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.4	4.5	1.0	.0	.0	.0	6.8	1.4	.3	.0	.0	.0	.0	1.7

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	TOTAL PCT
<1	.0	1.4	.0	.0	.0	.0	1.4	.0	1.4	.0	.0	.0	.0	1.4	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	1.4	.0	.0	.0	.0	1.4	.0	1.4	.0	.0	.0	.0	1.4	79.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT
<1	28.0	8.0	1.3	.0	.0	.0	37.3	085
1-2	1.3	18.7	8.0	.0	.0	.0	28.0	
3-4	.0	8.0	14.7	1.3	.0	.0	24.0	
5-6	.0	.0	6.7	.0	.0	.0	6.7	
7	.0	.0	2.7	.0	.0	.0	2.7	
8-9	.0	.0	1.3	.0	.0	.0	1.3	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	29.3	34.7	34.7	1.3	.0	.0	100.0	75

PERIOD: (OVER-ALL) 1955-1969

TABLE 10

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	9.0	17.9	11.5	7.7	2.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	38	3
6-7	.0	1.3	3.8	7.7	5.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	5
8-9	.0	1.3	1.3	1.3	.0	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	23.1	5.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22	0
TOTAL	25	20	13	13	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	78	2
PCT	32.1	25.6	16.7	16.7	7.7	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1890-1968  
(OVER-ALL) 1874-1968

JULY

AREA 0022 CAPE TARBOT  
13.25 126.2E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
N	4.0	.0	.0	.0	.0	.0	.0	4.0	.0	.0	5.9	.0	2.0	.0	88.1
NE	1.0	.0	.0	.0	.0	.0	.0	1.0	.0	.0	4.9	.0	.0	.0	94.1
E	.4	.0	.0	.0	.0	.0	.0	.4	.0	.0	5.3	.0	1.4	.0	92.9
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5	.0	.3	.0	95.2
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.4	.0	2.7	.0	91.9
SW	.0	.0	2.2	.0	.0	.0	.0	2.2	.0	2.2	13.1	.0	.0	.0	82.5
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5	15.2	.0	.0	.0	82.3
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.4	4.8	.0	2.4	.0	90.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0
TOT PCT	.4	.0	.2	.0	.0	.0	.0	.6	.0	.4	5.9	.0	1.0	.0	92.2
TOT OBS:	526														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA
00003	.6	.0	.0	.0	.0	.0	.0	.6	.0	.0	6.3	.0	.0	.0	93.1
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.8	.0	3.8	.0	91.3
12015	.0	.0	.6	.0	.0	.0	.0	.6	.0	1.1	6.1	.0	.6	.0	91.6
18021	.9	.0	.0	.0	.0	.0	.0	.9	.0	.9	10.0	.0	.0	.0	88.2
TOT PCT	.4	.0	.2	.0	.0	.0	.0	.5	.0	.5	6.7	.0	.9	.0	91.4
TOT OBS:	568														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)						48+	TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	00					03	06	09	12	15	18	21
N	2.3	2.4	.0	.0	.0	.0	4.6	4.1	3.6	.6	1.9	19.3	10.2	1.7	.0	.0	
NE	2.6	6.4	.8	.1	.0	.0	9.9	6.5	6.1	5.9	10.8	18.2	11.6	15.3	5.9	9.5	
E	4.1	12.3	10.6	.6	.0	.0	27.5	9.6	27.3	31.2	34.9	17.0	30.0	30.1	18.6	25.0	
SE	5.6	13.9	7.1	.9	.0	.0	27.5	8.7	37.0	30.9	35.4	9.1	22.3	20.8	29.1	29.1	
S	4.4	5.8	.4	.0	.0	.0	10.6	4.8	16.8	11.7	9.4	4.5	6.8	6.8	10.9	15.5	
SW	4.1	3.6	.7	.0	.0	.0	8.5	4.7	8.1	9.9	1.9	11.4	6.4	11.9	10.5	13.6	
W	2.0	1.8	.0	.0	.0	.0	3.7	3.7	.0	3.1	.0	8.0	7.3	3.4	3.2	5.5	
NW	2.5	1.1	.2	.0	.0	.0	3.8	3.5	.0	3.1	5.7	10.2	4.5	5.1	3.6	1.8	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	3.8						3.8	.0	3.1	3.7	.0	2.3	.9	5.1	18.2	.0	
TOT DBS	174	262	110	9	0	0	555	7.0	98	81	53	44	110	59	55	55	
TOT PCT	31.4	47.2	19.8	1.6	.0	.0		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	4.0	.7	.0	.0	.0	4.6	4.1	2.2	9.8	7.2	.0		
NE	6.2	2.7	.9	.0	.0	9.9	6.5	6.0	14.2	12.9	7.7		
E	10.2	13.2	4.0	.1	.0	27.5	9.6	29.1	26.8	30.0	21.8		
SE	12.7	10.9	3.8	.4	.0	27.5	8.7	34.2	23.5	21.7	29.1		
S	8.2	2.3	.1	.0	.0	10.6	4.8	14.5	7.2	6.8	13.2		
SW	7.1	1.3	.2	.0	.0	8.5	4.7	7.8	6.2	8.3	12.0		
W	3.4	.4	.0	.0	.0	3.7	3.7	1.4	3.6	5.9	4.3		
NW	3.4	.4	.0	.0	.0	3.8	3.5	1.4	7.7	4.7	2.7		
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
CALM	3.8					3.8	.0	3.4	1.0	2.4	9.1		
TOT DBS	327	177	50	1	0	555	7.0	179	97	169	110		
TOT PCT	58.9	31.9	9.0	.2	.0	100.0		100.0	100.0	100.0	100.0		



PERIOD: (PRIMARY) 1890-1968  
(OVER-ALL) 1874-1968

JULY

AREA 0022 CAPE TALROT  
13.25 126.2E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	3.4	28.5	46.4	19.6	2.2	.0	.0	7.0	100.0	179	
04009	1.0	24.7	48.5	24.7	1.0	.0	.0	7.8	100.0	97	
12015	2.4	28.4	50.9	17.8	.6	.0	.0	6.7	100.0	169	
18021	9.1	27.3	41.8	19.1	2.7	.0	.0	6.9	100.0	110	
TOT	21	193	262	110	9	0	0	7.0		555	
PCT	3.8	27.6	47.2	19.8	1.6	.0	.0	100.0			

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	1.8	.0	.0	.0		.0
NE	4.1	.8	.0	.0		1.2
E	27.6	2.4	4.7	.6		1.5
SE	27.3	3.9	2.4	.0		1.0
S	5.5	.6	.0	.0		1.1
SW	5.4	1.3	.0	.0		.9
W	1.1	.0	.0	.0		.4
NW	1.3	.0	.0	.0		.0
VAR	.0	.0	.0	.0		.0
CALM	8.4	.0	.0	.0		.2
TOT OBS	127	14	12	1	154	1.1
TOT PCT	82.5	9.1	7.8	.6	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
149	299	599	999	1999	3499	4999	6499	7999			
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.9	
.0	.0	.0	.0	1.0	.6	.0	.0	.6	1.3	31.8	
.0	.0	.0	.0	1.0	.0	.0	.0	.6	.6	31.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.7	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.4	
.0	0	0	0	0	3	1	0	0	2	3	145
.0	.0	.0	.0	.0	1.9	.6	.0	.0	1.3	1.9	94.2
											100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
>4000	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
>3500	3.2	3.2	3.2	3.2	3.2	3.2	3.2	3.2
>3000	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
>2500	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
>2000	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
>1500	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
>1000	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
>500	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
>0	5.8	5.8	5.8	5.8	5.8	5.8	5.8	5.8
TOTAL	9	9	9	9	9	9	9	9

TOTAL NUMBFR OF OBS: 156

PCT FREQ NH <5/8 94.2

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
62.4	23.6	3.2	3.8	1.3	2.5	.6	1.9	.6	.0	157

PERIOD: (PRIMARY) 1890-1968  
(OVER-ALL) 1874-1968

JULY

AREA 0022 CAPE TALBOT  
13.25 126.2E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.3	.5	1.0	1.2	.6	1.1	.6	.2	.0	.0	5.5	.0
	TOT %	.3	.5	1.0	1.2	.6	1.1	.6	.2	.0	.0	5.5	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.1	.0	.2	.1	.5	.0	.0	.3	.0	.0	1.1	.0
	TOT %	.1	.0	.2	.1	.5	.0	.0	.3	.0	.0	1.1	.0
2<5	PCP	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.0
5<10	PCP	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.4	.0
	NO PCP	3.7	7.5	12.3	13.6	5.6	3.7	2.6	2.8	.0	1.0	52.7	.0
	TOT %	3.9	7.6	12.4	13.6	5.6	3.7	2.6	2.8	.0	1.0	53.0	.0
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.5	1.7	13.3	12.6	3.9	3.7	.6	.8	.0	3.0	40.1	.0
	TOT %	.5	1.7	13.3	12.6	3.9	3.7	.6	.8	.0	3.0	40.1	.0
TOT OBS													526
TOT PCT		4.8	9.7	26.9	27.5	10.6	8.7	3.8	4.0	.0	4.0	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.1	.4	.5	.7	.3	.9	.4	.2	.0	.0	3.4	.0
	4-10	.2	.1	.4	.6	.3	.2	.2	.0	.0	.0	1.9	.0
	11-21	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.3	.5	1.0	1.2	.6	1.1	.6	.2	.0	.0	5.5	.0
1<2	0-3	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	.2	.0
	4-10	.1	.0	.2	.1	.3	.0	.0	.1	.0	.0	.8	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.1	.0	.2	.1	.5	.0	.0	.3	.0	.0	1.1	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.2	.0
5<10	0-3	2.1	1.9	1.9	4.0	2.7	2.3	1.6	2.3	.0	.9	19.7	.0
	4-10	1.9	5.0	6.5	7.3	2.6	1.4	1.1	.5	.0	.0	26.3	.0
	11-21	.0	.6	3.8	2.3	.3	.0	.0	.0	.0	.0	7.0	.0
	22+	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.2	.0
	TOT %	4.0	7.6	12.4	13.5	5.6	3.7	2.7	2.7	.0	.9	53.2	.0
10+	0-3	.2	.4	1.2	1.0	.4	1.0	.1	.2	.0	3.0	8.1	.0
	4-10	.3	1.0	5.5	6.0	2.8	2.0	.5	.6	.0	.0	18.8	.0
	11-21	.0	.2	6.1	4.7	.1	.6	.0	.0	.0	.0	11.7	.0
	22+	.0	.4	.9	.9	.0	.0	.0	.0	.0	.0	1.3	.0
	TOT %	.5	1.7	13.3	12.5	3.4	3.6	.6	.8	.0	3.0	40.0	.0
TOT OBS													528
TOT PCT		4.9	9.8	26.8	27.4	10.5	8.7	3.9	4.0	.0	4.0	100.0	

JULY

PERIOD: (PRIMARY) 1890-1948  
(OVER-ALL) 1874-1968AREA 0022 CAPE TALROT  
13.25 126.2E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	149	299	599	999	1999	3499	4999	6499	7999				
00003	.0	.0	.0	.0	3.2	3.2	.0	.0	3.2	3.2	12.9	87.1	31
06009	.0	.0	.0	.0	3.6	.0	.0	.0	3.6	.0	7.1	92.9	28
12015	.0	.0	.0	.0	1.9	.0	.0	.0	.0	1.9	3.8	96.2	52
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	2.2	97.8	46
TOT	0	0	0	0	3	1	0	0	2	3	9	148	157
PCT	.0	.0	.0	.0	1.9	.6	.0	.0	1.3	1.9	5.7	94.3	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	6.3	.0	.0	64.2	29.5	176
06009	.0	3.8	3.8	.0	51.9	40.4	104
12015	.0	5.6	.6	.6	55.9	37.4	179
18021	.0	9.0	.9	.0	43.2	46.8	111
TOT	0	35	6	1	315	213	570
PCT	.0	6.1	1.1	.2	55.3	37.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	12.9	87.1	31
06009	.0	.0	.0	7.1	92.9	28
12015	.0	.0	.0	3.9	96.1	51
18021	.0	.0	.0	2.2	97.8	46
TOT	0	0	0	9	147	156
PCT	.0	.0	.0	5.8	94.2	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.0	.0	1.4	.9	.0	.0	5	2.4
80/84	.0	.0	1.9	4.7	1.9	5.2	.5	.9	32	15.1
75/79	.0	.0	4.2	14.6	19.3	14.6	5.7	3.8	132	62.3
70/74	.0	.0	1.4	8.4	4.7	2.4	1.4	.0	39	18.4
65/69	.0	.0	.0	.0	.5	.5	.5	.0	3	1.4
60/64	.0	.0	.0	.5	.0	.0	.0	.0	1	.5
TOTAL	0	0	16	60	59	50	17	10	212	100.0
PCT	.0	.0	7.5	28.3	27.8	23.6	8.0	4.7		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	1.9	.0	.0	.5	.0	.0	.0	.0
.5	.9	7.8	2.7	1.3	.9	.0	.0	.0	.9
1.3	4.0	26.7	18.0	2.8	2.2	1.1	.9	.0	5.2
.2	.9	5.8	9.0	.4	1.4	.0	.2	.0	.5
.0	.0	.7	.7	.0	.0	.0	.0	.0	.0
.0	.0	.0	.0	.0	.0	.5	.0	.0	.0
2.0	5.9	42.8	30.4	4.5	5.1	1.5	1.2	.0	6.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	86	85	83	77	70	66	62	76.8	189
06009	88	85	83	79	73	72	72	78.6	106
12015	86	81	80	77	72	69	66	76.7	185
18021	86	82	80	76	71	64	64	75.9	115
TOT	88	85	82	77	71	68	62	76.9	595

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	35.6	28.8	23.7	6.8	5.1	55			59
06009	.0	47.2	30.6	13.9	2.8	5.6	53			36
12015	.0	29.7	25.7	27.0	10.8	6.8	58			74
18021	.0	31.5	25.9	27.8	11.1	3.7	57			54
TOT	0	77	61	54	19	12	56			223

PERIOD: (PRIMARY) 1890-1968  
(OVER-ALL) 1874-1968

JULY

AREA 0022 CAPE TALBOT  
13.25 126.2E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	W0 FOG
9/10	.0	.0	.0	.0	.4	.2	3	.0	.4
7/8	.0	.0	.4	.6	.2	.0	6	.0	1.3
6	.0	.0	.4	.8	.4	.2	9	.0	1.9
5	.0	.2	.4	1.1	.4	.2	11	.4	1.9
4	.0	.0	.6	2.3	1.1	.6	22	.6	4.0
3	.0	.0	1.3	5.3	1.5	.0	38	.2	7.8
2	.0	.0	3.0	7.8	1.1	.4	58	.6	11.6
1	.0	.8	3.4	11.4	1.3	.0	79	2.5	14.1
0	.0	.4	7.0	8.4	1.5	.0	82	2.1	15.2
-1	.0	.2	5.5	2.7	.4	.0	42	.8	8.0
-2	.0	2.5	3.6	3.2	.2	.0	45	.2	9.3
-3	.2	1.5	2.1	2.5	.2	.0	31	.2	6.3
-4	.2	1.1	2.5	1.1	.2	.0	24	.2	4.9
-5	.0	.6	1.1	.8	.0	.0	12	.0	2.5
-6	.2	.4	.6	.4	.0	.0	8	.0	1.7
-7/-8	.0	.2	.4	.0	.0	.0	3	.0	.6
-9/-10	.0	.2	.0	.0	.0	.0	1	.0	.2
TOTAL	3	38	153	230	42	8	474	38	436
PCT	.6	8.0	32.3	48.5	8.9	1.7	100.0	8.0	92.0

PERIOD: (OVER-ALL) 1963-1968

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	1.1	1.1	.0	.0	.0	.0	2.1	1.1	2.1	.0	.0	.0	.0	3.2
1-2	.0	.8	.0	.0	.0	.0	.8	.0	.5	.0	.0	.0	.0	.5
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	.0	.0	.0	1.3
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	1.8	.0	.0	.0	.0	2.9	1.1	2.6	1.3	.0	.0	.0	5.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	5.8	.0	.0	.0	.0	6.6	1.3	4.7	.0	.0	.0	.0	6.1
1-2	.0	7.4	2.1	.0	.0	.0	9.5	.0	5.0	.0	.0	.0	.0	5.0
3-4	.0	1.8	12.9	.0	.0	.0	14.7	.0	1.3	7.9	.0	.0	.0	9.2
5-6	.0	1.1	5.8	.0	.0	.0	6.8	.0	.3	.5	.0	.0	.0	.8
7	.0	.0	1.8	.8	.0	.0	2.6	.0	.0	5.5	.3	.0	.0	5.8
8-9	.0	.0	.0	.8	.0	.0	.8	.0	.0	.3	.3	.0	.0	.3
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.8	16.1	22.6	1.6	.0	.0	41.1	1.3	11.3	14.2	.5	.0	.0	27.4

PERIOD: (OVER-ALL) 1963-1968

JULY

AREA 0022 CAPE TALBOT  
13.25 126.2E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							PCT	SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+		
<1	1.1	1.1	.0	.0	.0	.0		2.1	.0	4.5	.0	.0	.0	.0		4.5
1-2	.0	1.1	.0	.0	.0	.0		1.1	.0	.0	.0	.0	.0	.0		.0
3-4	.0	.0	.0	.0	.0	.0		.0	.0	2.1	.0	.0	.0	.0		2.1
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0
TOT PCT	1.1	2.9	.8	.0	.0	.0		4.7	.0	6.6	.0	.0	.0	.0		6.6

HGT	W							PCT	NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+			1-3	4-10	11-21	22-33	34-47	48+			
<1	.0	1.8	.0	.0	.0	.0		1.8	.0	.0	.0	.0	.0	.0		.0	
1-2	.0	.0	.0	.0	.0	.0		.0	.0	1.1	.0	.0	.0	.0		.0	1.1
3-4	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
5-6	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
7	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
8-9	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
10-11	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
12	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
13-16	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
17-19	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
20-22	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
23-25	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
26-32	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
33-40	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
41-48	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
49-60	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
61-70	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
71-86	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
87+	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		.0	.0
TOT PCT	.0	1.8	.0	.0	.0	.0		1.8	.0	1.1	.0	.0	.0	.0		1.1	90.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	14.7	21.1	.0	.0	.0	.0	35.8	
1-2	.0	15.8	2.1	.0	.0	.0	17.9	
3-4	.0	5.3	22.1	.0	.0	.0	27.4	
5-6	.0	2.1	6.3	.0	.0	.0	8.4	
7	.0	.0	7.4	1.1	.0	.0	8.4	
8-9	.0	.0	1.1	1.1	.0	.0	2.1	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	14.7	44.2	38.9	2.1	.0	.0	100.0	95

PERIOD: (OVER-ALL) 1950-1968

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<5	16.8	13.9	20.8	6.9	3.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	63	2
6-7	.0	3.0	6.9	4.0	5.9	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	21	5
8-9	.0	.0	1.0	2.0	2.0	.0	.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	6
10-11	.0	.0	1.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	5
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
14-15	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDFT	8.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9	0
TOTAL	26	17	29	13	12	1	1	1	1	0	0	0	0	0	0	0	0	0	0	101	3
PCT	25.7	16.8	28.7	12.9	11.9	1.0	1.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1890-1971  
(OVER-ALL) 1868-1971

AUGUST

AREA 0022 CAPE TALBOT  
13.15 126.6E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WFA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.2	.0	3.1	.0	84.7
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.4	.0	18.4	.0	78.7
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.5	.0	7.9	.0	84.8
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.0	.0	5.7	.0	86.2
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.2	.0	2.2	.0	93.3
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.1	.0	10.8	.0	87.2
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.8	.0	8.3	.0	78.5
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.3	.0	0.6	.0	88.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	22.2	.0	77.8
TOT PCT	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	4.9	.0	8.5	.0	84.9
TOT OBS:	471														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WFA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00003	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	10.2	.0	5.4	.0	82.6
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.7	.0	81.6
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.3	2.0	.0	10.5	.0	86.3
18021	.0	.0	.0	.0	.0	.0	1.0	1.0	.0	5.0	2.0	.0	5.9	.0	86.1
TOT PCT	.0	.0	.0	.0	.0	.0	.2	.2	.0	1.9	5.5	.0	8.2	.0	84.2
TOT OBS:	524														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)						
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18
N	2.6	2.3	.2	.0	.0	.0		5.0	4.0		1.1	7.2	4.8	4.9	11.2	3.3	1.8
NE	.9	5.8	1.0	.1	.0	.0		7.7	7.3		4.5	6.2	10.1	4.9	11.7	12.0	7.1
E	2.3	12.9	7.0	.9	.0	.0		23.2	9.9		17.4	25.7	24.6	39.0	27.9	20.7	10.3
SE	3.6	11.2	6.5	.5	.0	.0		21.8	8.9		27.0	32.6	21.5	22.0	14.8	19.6	19.2
S	3.3	6.0	.9	.0	.0	.0		10.2	5.6		14.3	9.4	5.7	9.8	5.5	10.9	12.9
SW	3.8	6.2	.2	.0	.0	.0		10.2	4.5		18.3	8.7	6.6	2.4	6.0	9.8	16.1
W	3.6	4.9	.7	.0	.0	.0		9.2	4.7		8.4	3.6	11.4	4.9	9.4	9.8	8.5
NW	3.3	2.9	.1	.0	.0	.0		6.2	3.8		2.2	.7	10.1	12.2	7.3	9.8	4.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0
CALM	6.5							6.5	.0		6.7	5.8	5.3	.0	6.3	4.3	19.6
TOT DBS	147	255	81	7	0	0	490		6.7		89	69	57	41	95	46	56
TOT PCT	30.0	52.0	16.5	1.4	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	4.3	.7	.0	.0	.0		5.0	4.0	3.8	4.8	8.6	1.6	
NE	4.0	3.4	.3	.0	.0		7.7	7.3	5.2	7.9	11.8	5.4	
E	6.6	13.2	3.5	.0	.0		23.2	9.9	21.0	30.6	25.5	15.5	
SE	7.3	9.4	3.1	.0	.0		21.8	8.9	25.4	21.7	16.4	17.1	
S	7.3	2.6	.3	.0	.0		10.2	5.6	12.2	7.4	7.2	14.4	
SW	8.7	1.5	.0	.0	.0		10.2	4.5	14.1	4.8	7.2	13.6	
W	7.6	1.7	.0	.0	.0		9.2	4.7	6.3	8.7	9.5	14.4	
NW	5.3	.9	.0	.0	.0		6.2	3.8	1.6	11.0	8.1	6.0	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	6.5						6.5	.0	6.3	3.1	5.6	12.0	
TOT DBS	292	163	35	0	0	490		6.7	158	98	142	92	
TOT PCT	59.6	33.3	7.1	.0	.0		100.0		100.0	100.0	100.0	100.0	

AUGUST

PERIOD: (PK14ARY) 1890-1971  
(OVER-ALL) 1898-1971AREA 0072 CAPE TALBOT  
19.15 126.6E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	6.3	24.7	50.0	17.1	1.0	.0	.0	.0	7.0	100.0	158
06009	3.1	23.5	54.1	18.4	1.0	.0	.0	.0	7.5	100.0	98
12015	5.0	24.6	55.6	12.7	1.4	.0	.0	.0	6.1	100.0	142
18021	12.0	19.6	47.8	19.6	1.1	.0	.0	.0	6.3	100.0	92
TOT	32	115	255	81	7	0	0	0	6.7		490
PCT	6.5	23.5	52.0	16.5	1.4	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8-6	TOTAL OBS	MEAN CLOUD COVER
N	5.2	.7	.0	.0		.5
NE	8.5	.7	.7	.0		.9
E	19.1	1.0	.5	.0		.6
SE	12.6	2.3	.8	.0		.9
S	6.0	.0	.7	.0		.5
SW	10.1	.0	1.3	.0		.8
W	9.2	.7	.0	.0		.5
NW	5.7	.0	.0	.0		.7
VAR	.0	.0	.0	.0		.0
CALM	13.7	.7	.0	.0		.1
TOT OBS	138	9	6	0	153	.6
TOT PCT	90.2	5.9	3.9	.0	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.9
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.8
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.5	20.1
SE	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.2	14.9
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.7
SW	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	10.8
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.8
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.7
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14.4
TOT OBS	0	0	0	0	1	1	0	0	0	1	150	153
TOT PCT	.0	.0	.0	.0	.7	.7	.0	.0	.0	.7	98.0	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	OR			VSBY (NM)			OR		
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0	>0
OR >6500	.6	.6	.6	.6	.6	.6	.6	.6	.6
OR >5000	.6	.6	.6	.6	.6	.6	.6	.6	.6
OR >3500	.6	.6	.6	.6	.6	.6	.6	.6	.6
OR >2000	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
OR >1000	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
OR >600	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
OR >300	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
OR >150	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
OR >0	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5
TOTAL	4	4	4	4	4	4	4	4	4

TOTAL NUMBER OF OBS: 158

PCT FREQ NH &lt;5/8: 97.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBS	TOTAL
68.2	18.8	5.9	2.4	2.4	1.2	1.2	.0	.0	.0	170

PERIOD: (PRIMARY) 1890-1971  
(OVER-ALL) 1869-1971

AUGUST

AREA 0022 CAPE TAIROT  
13.15 126.6E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.6	.1	1.0	1.2	.2	.2	.4	.1	.0	.0	3.8	.0
	TOT %	.6	.1	1.0	1.2	.2	.2	.4	.1	.0	.0	3.8	.0
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.7	1.6	.8	.2	.0	.0	.0	.0	.0	3.4	.0
	TOT %	.0	.7	1.6	.8	.2	.0	.0	.0	.0	.0	3.4	.0
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
	TOT %	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
5<10	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	2.7	3.2	12.2	13.2	4.8	5.0	5.1	4.5	.0	1.1	51.6	.0
	TOT %	2.7	3.2	12.2	13.2	4.8	5.0	5.1	4.5	.0	1.1	51.6	.0
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	1.9	3.2	8.7	7.1	4.4	5.1	4.1	1.9	.0	4.7	41.0	.0
	TOT %	1.9	3.2	8.7	7.1	4.4	5.1	4.1	1.9	.0	4.7	41.0	.0
TOT OBS													
TOT PCT													
		5.2	7.5	23.4	22.2	9.6	10.4	9.6	6.4	.0	5.7	100.0	471

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.3	.0	.4	.5	.1	.2	.0	.1	.0	.0	1.7	.0
	4-10	.3	.1	.5	.6	.1	.0	.2	.0	.0	.0	1.9	.0
	11-21	.0	.0	.0	.0	.0	.0	.2	.0	.0	.0	.2	.0
	22+	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2	.0
	TOT %	.6	.1	1.2	1.2	.2	.2	.4	.1	.0	.0	4.0	.0
1<2	0-3	.0	.0	.0	.1	.1	.0	.0	.0	.0	.0	.2	.0
	4-10	.0	.7	.3	.2	.0	.0	.0	.0	.0	.0	1.3	.0
	11-21	.0	.0	.8	.5	.1	.0	.0	.0	.0	.0	1.5	.0
	22+	.0	.0	.4	.0	.0	.0	.0	.0	.0	.0	.4	.0
	TOT %	.0	.7	1.6	.8	.2	.0	.0	.0	.0	.0	3.4	.0
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	.0
5<10	0-3	1.9	.7	.7	2.5	1.3	2.6	2.8	3.1	.0	1.1	16.7	.0
	4-10	.7	1.8	7.5	7.4	3.2	2.3	2.1	1.4	.0	.0	26.5	.0
	11-21	.0	.6	3.7	3.0	.3	.0	.2	.0	.0	.0	7.8	.0
	22+	.0	.1	.2	.2	.0	.0	.0	.0	.0	.0	.4	.0
	TOT %	2.6	3.2	12.1	13.1	4.8	5.0	5.1	4.4	.0	1.1	51.5	.0
10+	0-3	.4	.0	1.1	.3	1.2	.9	1.0	.2	.0	4.7	9.7	.0
	4-10	1.3	2.8	4.7	3.2	2.6	4.1	2.8	1.6	.0	.0	23.1	.0
	11-21	.2	.4	2.8	3.3	.5	.2	.3	.1	.0	.0	7.6	.0
	22+	.0	.0	.2	.3	.0	.0	.0	.0	.0	.0	.4	.0
	TOT %	1.9	3.2	8.7	7.0	4.3	5.1	4.1	1.9	.0	4.7	40.9	.0
TOT OBS													
TOT PCT													
		5.2	7.5	23.6	22.2	9.5	10.3	9.6	6.4	.0	5.7	100.0	472

AUGUST

PERIOD: (PRIMARY) 1890-1971  
(OVER-ALL) 1868-1971AREA 0022 CAPE TALROT  
13.15 126.6E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH  $\geq 4/8$ ) AND  
OCCURRENCE OF NH  $\leq 5/8$  BY HOUR

HOUR (GMT)	070 149	150 209	300 599	600 999	1000 1499	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH $\leq 5/8$ ANY HGT	TOTAL OBS
00E03	.0	.0	.0	.0	2.8	2.8	.0	.0	.0	2.8	8.3	91.7	36
06E09	.0	.0	.0	.0	2.4	.0	.0	.0	.0	.0	2.4	97.6	41
12E15	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	44
18E21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	49
TOT	0	0	0	0	2	1	0	0	0	1	4	166	170
PCT	.0	.0	.0	.0	1.2	.6	.0	.0	.0	.6	2.4	97.6	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00E03	.0	9.6	1.8	.0	59.3	29.3	167
06E09	.0	5.8	4.9	.0	41.7	47.6	103
12E15	.0	1.3	5.8	.6	55.2	37.0	154
18E21	.0	1.0	2.0	.0	44.6	52.5	101
TOT	0	25	19	1	272	208	525
PCT	.0	4.8	3.6	.2	51.8	39.6	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH  $\geq 4/8$ ) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH $\leq 5/8$ AND 5+	TOTAL OBS
00E03	.0	.0	.0	9.1	90.9	33
06E09	.0	.0	.0	2.6	97.4	38
12E15	.0	.0	.0	.0	100.0	41
18E21	.0	.0	.0	.0	100.0	46
TOT	0	0	0	4	154	158
PCT	.0	.0	.0	2.5	97.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
45/89	.0	.0	.0	.0	.7	.0	.0	.0	2	.7
50/84	.0	.7	.3	2.0	4.4	4.4	1.3	.0	39	13.1
75/79	.0	.3	3.0	10.7	10.7	27.9	14.4	3.4	210	70.5
70/74	.0	.0	1.3	5.4	3.4	1.3	2.0	1.0	43	14.4
65/69	.0	.0	.3	1.0	.0	.0	.0	.0	4	1.3
TOTAL	0	3	15	57	57	100	53	13	298	100.0
PCT	.0	1.0	5.0	19.1	19.1	33.6	17.8	4.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.3	.3	.0	.0	.0
.0	.7	3.9	2.1	.8	1.8	1.4	.7	.0	1.7
3.0	4.8	17.8	17.4	7.7	5.5	6.4	2.9	.0	5.0
.5	.9	3.4	4.6	1.5	1.8	1.1	.0	.0	.7
.0	.0	.3	1.0	.0	.0	.0	.0	.0	.0
3.5	6.4	25.4	25.1	10.1	9.4	9.2	3.5	.0	7.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00E03	88	84	83	78	72	67	66	77.6	177
06E09	88	86	84	79	74	72	72	79.1	99
12E15	84	82	81	77	73	72	71	77.1	152
18E21	80	79	79	76	71	67	67	75.8	99
TOT	88	84	82	77	72	68	66	77.4	527

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00E03	.0	29.7	18.7	33.0	15.4	3.3	58	91
06E09	.0	34.4	27.9	29.5	8.2	.0	55	61
12E15	.0	16.5	20.4	39.8	20.4	2.9	72	103
18E21	.0	20.5	12.3	26.0	30.1	11.0	74	73
TOT	0	80	64	108	62	14	70	328

## AUGUST

PERIOD: (PRIMARY) 1890-1971  
(OVER-ALL) 1868-1971AREA 0022 CAPE TALBOT  
13.15 126.0F

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 66	69 72	73 76	77 80	81 84	85 88	TOT	W FOG	NO FOG
11/13	.0	.0	.0	.8	.3	.0	4	.0	1.1
9/10	.0	.0	.3	.0	.0	.0	1	.0	.3
7/8	.0	.0	.3	.6	.8	.3	7	.0	1.9
6	.0	.0	.0	1.1	.6	.0	6	.0	1.7
5	.0	.0	.3	1.1	.3	.3	7	.3	1.7
4	.0	.0	.8	3.1	1.1	.6	20	.0	5.6
3	.0	.0	1.7	4.7	1.9	.0	30	1.9	6.4
2	.0	.3	1.9	7.0	4.2	.0	48	1.9	11.4
1	.0	.3	4.2	8.1	1.7	.0	51	1.1	13.1
0	.0	.3	4.2	10.6	1.1	.0	58	2.2	13.6
-1	.0	1.1	4.2	8.1	.0	.0	48	.6	12.8
-2	.3	.8	4.2	2.8	.0	.0	29	.0	8.1
-3	.0	.9	2.8	3.1	.0	.0	24	.0	6.7
-4	.0	.6	1.9	1.1	.0	.0	13	.0	3.6
-5	.0	.3	1.4	.0	.0	.0	6	.0	1.7
-6	.0	.0	.8	.0	.0	.0	3	.0	.8
-7/-8	.0	.3	.8	.0	.0	.0	4	.0	1.1
TOTAL	1	17	107	187	43	4	359	29	330
PCT	.3	4.7	29.8	52.1	12.0	1.1	100.0	8.1	91.9

PERIOD: (OVER-ALL) 1963-1971

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.9	.0	.0	.0	.0	1.9	.0	1.4	.0	.0	.0	.0	1.4
1-2	1.1	1.1	.0	.0	.0	.0	2.2	.0	.3	1.4	.0	.0	.0	1.7
3-4	.0	.0	.0	.0	.0	.0	.0	.0	1.1	.3	.0	.0	.0	1.4
5-6	.0	.0	.8	.0	.0	.0	.8	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.1	3.1	.8	.0	.0	.0	5.0	.0	2.8	1.7	.0	.0	.0	4.4

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	2.2	1.1	.0	.0	.0	.0	3.3	.0	2.8	.0	.0	.0	.0	2.8
1-2	.0	5.8	.8	.0	.0	.0	6.7	.0	3.0	1.1	.0	.0	.0	6.1
3-4	.0	1.9	5.0	.0	.0	.0	6.9	.0	.3	1.4	.0	.0	.0	1.7
5-6	.0	.0	1.9	.0	.0	.0	1.9	.0	.0	1.4	1.1	.0	.0	2.5
7	.0	.0	.8	.8	.0	.0	1.7	.0	.0	.6	.3	.0	.0	.8
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.2	8.9	8.6	.8	.0	.0	20.6	.0	8.1	4.4	1.4	.0	.0	13.9



PERIOD: (OVER-ALL) 1963-1971

AUGUST

AREA 0022 CAPE TALBOT  
13.15 126.6E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S								SW							
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	2.5	.0	.0	.0	.0	2.5		1.4	4.7	.0	.0	.0	.0	6.1	
1-2	.0	2.2	.8	.0	.0	.0	3.1		.0	2.2	.6	.0	.0	.0	2.8	
3-4	.0	.8	.0	.0	.0	.0	.8		.0	2.5	.3	.0	.0	.0	2.8	
5-6	.0	.0	1.1	.0	.0	.0	1.1		.0	.0	.0	.0	.0	.0	.0	
7	.0	.0	.8	.0	.0	.0	.8		.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	5.6	2.8	.0	.0	.0	8.3		1.4	9.4	.8	.0	.0	.0	11.7	

HGT	W								NW								TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT		1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	1.9	4.2	.0	.0	.0	.0	6.1		1.1	.3	.0	.0	.0	.0	1.4		
1-2	.0	3.3	.8	.0	.0	.0	4.2		.0	2.2	.0	.0	.0	.0	2.2		
3-4	.0	.0	.0	.0	.0	.0	.0		.0	2.2	.0	.0	.0	.0	2.2		
5-6	.0	.0	.0	.0	.0	.0	.0		.0	.0	.3	.0	.0	.0	.3		
7	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
8-9	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	.0		
TOT PCT	1.9	7.5	1.7	.0	.0	.0	11.1		1.1	4.7	.3	.0	.0	.0	6.1	81.1	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	26.9	18.3	.0	.0	.0	.0	45.2	
1-2	2.2	21.3	5.4	.0	.0	.0	29.0	
3-4	.0	8.6	7.5	.0	.0	.0	16.1	
5-6	.0	.0	5.4	1.1	.0	.0	6.5	
7	.0	.0	2.2	1.1	.0	.0	3.2	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	29.0	48.4	20.4	2.2	.0	.0	100.0	93

PERIOD: (OVER-ALL) 1950-1971

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	15.2	26.3	9.1	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	54	2
6-7	1.0	.0	7.1	5.1	4.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	4
8-9	.0	.0	3.0	1.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	4
10-11	.0	.0	4.0	2.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	4
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDET	16.2	.0	1.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	17	0
TOTAL	32	26	24	12	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	99	2
PCT	32.3	26.3	24.2	12.1	5.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1873-1969

AREA 0022 CAPE TARTOT  
12.95 126.2E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.0	20.9	.0	7.0	.0	65.2
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.9	12.5	.0	13.2	.0	67.4
E	1.8	.0	.0	.0	.0	.0	.0	1.8	1.8	1.8	.9	.0	9.5	.0	86.0
SE	2.8	1.4	.0	.0	.0	.0	.0	4.3	.0	5.7	.0	.0	18.4	.0	74.5
S	.0	1.7	.0	.0	.0	.0	.0	1.7	.0	.0	.0	.0	8.4	.0	89.9
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.5	.0	2.4	.0	95.5
W	.0	.5	.0	.0	.0	.0	.0	.5	.0	6.8	1.0	.0	3.6	.0	88.1
NW	.0	.7	.0	.0	.0	.0	.0	.7	.0	4.5	8.2	.0	3.0	.0	83.5
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15.7	.0	83.3
TOT PCT	.4	.4	.0	.0	.0	.0	.0	.9	.2	4.1	3.9	.0	6.9	.0	84.6
TOT OBS:	467														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NIG SIG WEA
00003	.0	.5	.0	.0	.0	.0	.0	.5	.5	2.2	6.6	.0	7.7	.0	82.4
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.1	.0	10.1	.0	82.8
12015	.6	.6	.0	.0	.0	.0	.0	1.3	.0	8.2	1.9	.0	7.5	.0	81.6
18021	1.1	.0	.0	.0	.0	.0	.0	1.1	.0	10.2	2.3	.0	4.5	.0	83.0
TOT PCT TOT OBS:	.4 528	.4	.0	.0	.0	.0	.0	.8	.2	4.9	4.5	.0	7.6	.0	82.4

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	2.2	3.3	.8	.0	.0	.0		6.3	5.8		2.2	5.6	14.4	11.5	7.2	5.4	4.8	3.7
NE	3.1	3.5	.8	.0	.0	.0		7.4	5.8		5.1	8.1	9.6	6.7	11.9	8.9	3.2	1.9
E	1.8	7.4	3.4	.5	.0	.0		13.0	8.8		10.3	22.5	10.1	21.2	10.4	9.8	6.5	9.3
SE	.8	4.9	1.1	.3	.0	.0		7.1	7.8		7.4	11.7	5.9	10.6	5.4	5.4	.0	5.5
S	2.5	3.6	.5	.0	.0	.0		6.6	5.1		10.8	8.9	3.7	2.9	2.0	8.0	1.6	11.1
SW	6.9	11.6	.9	.0	.0	.0		19.4	5.3		23.0	17.8	12.8	21.2	14.9	18.8	27.4	24.1
W	6.4	12.4	2.9	.0	.0	.0		21.7	6.2		24.8	10.6	12.8	15.3	22.8	26.8	28.2	36.1
NW	5.1	8.2	.8	.0	.0	.0		14.1	5.3		10.5	12.8	24.5	9.6	20.5	13.4	12.1	8.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.3							4.3	.0		5.9	2.2	6.4	.0	5.0	3.6	16.1	.0
TOT OBS	177	292	60	4	0	0	533		5.9		102	90	47	52	101	56	31	54
TOT PCT	33.2	54.8	11.3	.8	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40						00	03	06	12	18
N	4.4	1.7	.3	.0	.0		6.3	5.8		3.8	12.9	6.5	4.1	
NE	4.5	2.6	.3	.0	.0		7.4	5.8		8.5	8.1	10.8	2.4	
E	5.4	6.3	1.3	.0	.0		13.0	8.8		10.0	15.9	10.2	8.2	
SE	3.8	3.0	.4	.0	.0		7.1	7.8		9.4	8.3	5.4	3.5	
S	5.0	1.6	.0	.0	.0		6.6	5.1		9.9	3.3	4.1	7.6	
SW	13.6	5.9	.0	.0	.0		19.4	5.3		20.6	17.2	16.2	25.3	
W	12.7	8.8	.2	.0	.0		21.7	6.2		18.1	14.6	24.2	33.2	
NW	10.1	3.8	.2	.0	.0		14.1	5.3		11.6	16.7	18.0	9.7	
VAR	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	
CALM	4.3						4.3	.0		4.2	3.0	4.5	5.9	
TOT OBS	340	179	14	0	0	533		5.9		192	99	157	85	
TOT PCT	63.8	33.6	2.6	.0	.0		100.0			100.0	100.0	100.0	100.0	

SEPTEMBER

PERIOD: (PRIMARY) 1890-1969  
(COVER-ALL) 1873-1969

AREA 0022 CAPE TALBOT  
12.95 126.2E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				48+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
0000	4.2	33.3	52.6	8.9	1.0	.0	.0	.0	5.4	100.0	192
0600	3.0	23.2	55.6	18.2	.0	.0	.0	.0	5.5	100.0	99
1200	4.5	27.4	56.1	11.5	.6	.0	.0	.0	6.2	100.0	157
1800	5.9	28.2	56.5	8.2	1.2	.0	.0	.0	5.8	100.0	85
TOT	23	154	292	60	4	0	0	0	5.9		533
PCT	4.3	28.9	54.8	11.3	.8	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.7	.0	.0	.0		.5
NE	3.6	.0	.9	.0		2.4
E	5.5	.0	1.8	.0		1.5
SE	.0	.9	1.1	.0		5.4
S	2.5	.7	.9	.0		2.6
SW	17.0	1.1	.5	.0		.9
W	25.0	.9	1.4	.0		.9
NW	16.1	.9	.0	.0		.6
VAR	.0	.0	.0	.0		.0
CALM	10.0	.9	.9	.0		1.8
TOT OBS	94	6	9	1	110	1.1
TOT PCT	85.5	5.5	8.2	.9	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5.7
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5
E	.0	.0	.0	.0	.9	.0	.0	.0	.0	.0	.0	5.4
SE	.0	.0	.0	.0	.0	.2	.9	.0	.0	.0	.0	.9
S	.0	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	4.1
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.6
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	27.3
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.0
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.8
TOT OBS	0	0	0	0	1	1	1	0	0	0	0	110
TOT PCT	.0	.0	.0	.0	.9	.9	.9	.0	.0	.0	.0	97.3

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>4500	.0	.0	.0	.0	.0	.0	.0	.0
>4000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	.9	.9	.9	.9	.9	.9	.9	.9
>3000	1.8	1.8	1.8	1.8	1.8	1.8	1.8	1.8
>2500	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
>2000	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
>1500	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
>1000	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
>500	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
>0	2.7	2.7	2.7	2.7	2.7	2.7	2.7	2.7
TOTAL	3	3	3	3	3	3	3	3

TOTAL NUMBER OF OBS: 112

PCT FREQ NH <5/8: 97.3

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	52.6	23.7	14.1	3.0	3.0	2.2	.7	.7	.0	.0	135

PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1873-1969

SEPTEMBER

AREA 0022 CAPE TALROT  
12.95 126.2E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	1.2	.9	.1	.0	.0	.0	.0	1.3	.0	.0	3.4	
	TOT %	1.2	.9	.1	.0	.0	.0	.0	1.3	.0	.0	3.4	
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.6	.6	.9	1.6	.5	.2	.7	.2	.0	.2	5.4	
	TOT %	.6	.6	.9	1.6	.5	.2	.4	.2	.0	.2	5.4	
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	.4	
	TOT %	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	.4	
5<10	PCP	.0	.0	.2	.3	.1	.0	.1	.1	.0	.0	.9	
	NO PCP	1.7	3.4	7.3	4.2	3.6	13.1	12.8	7.4	.0	.4	54.0	
	TOT %	1.7	3.4	7.5	4.6	3.7	13.1	13.0	7.5	.0	.4	54.8	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	2.6	2.8	3.4	1.4	2.1	6.9	8.5	5.3	.0	3.0	36.0	
	TOT %	2.6	2.8	3.4	1.4	2.1	6.9	8.5	5.3	.0	3.0	36.0	
TOT OBS													
TOT PCT		6.2	7.7	11.9	7.5	6.4	20.1	22.1	14.3	.0	3.9	100.0	467

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.7	.6	.1	.0	.0	.0	.0	.9	.0	.0	2.4	
	4-10	.4	.2	.0	.0	.0	.0	.0	.4	.0	.0	1.1	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	1.2	.9	.1	.0	.0	.0	.0	1.3	.0	.0	3.4	
1<2	0-3	.0	.0	.0	.0	.2	.0	.0	.2	.0	.2	.6	
	4-10	.6	.4	.2	1.0	.3	.2	.4	.0	.0	.0	3.2	
	11-21	.0	.2	.6	.6	.0	.0	.0	.0	.0	.0	1.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.6	.6	.9	1.6	.5	.2	.4	.2	.0	.2	5.4	
2<5	0-3	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	.4	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.2	.0	.0	.2	.4	
5<10	0-3	1.0	1.7	.7	.3	1.8	5.5	5.4	3.5	.0	.4	20.3	
	4-10	.5	1.4	4.1	3.7	1.9	7.2	6.9	3.6	.0	.0	24.3	
	11-21	.2	.3	2.1	.2	.0	.4	.7	.3	.0	.0	4.3	
	22+	.0	.0	.5	.3	.0	.0	.0	.0	.0	.0	.9	
	TOT %	1.7	3.4	7.5	4.6	3.7	13.1	13.0	7.5	.0	.4	54.8	
10+	0-3	.2	.9	.2	.4	.2	1.5	.9	.6	.0	3.0	7.9	
	4-10	1.7	1.5	2.5	.7	1.3	4.8	5.0	4.0	.0	.0	21.4	
	11-21	.7	.4	.8	.3	.6	.6	2.6	.6	.0	.0	6.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	2.6	2.8	3.4	1.4	2.1	6.9	8.5	5.3	.0	3.0	36.0	
TOT OBS													
TOT PCT		6.2	7.7	11.9	7.5	6.4	20.1	22.1	14.3	.0	3.9	100.0	467

SEPTEMBER

PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1873-1969

AREA 0022 CAPE TALROT  
12.95 126.2E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	.0	2.6	.0	.0	.0	.0	2.6	97.4	38
06009	.0	.0	.0	.0	.0	.0	3.1	.0	.0	.0	3.1	96.9	32
12015	.0	.0	.0	.0	2.7	.0	.0	.0	.0	.0	2.7	97.3	37
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	26
TOT PCT	0 .0	0 .0	0 .0	0 .0	1 .8	1 .8	1 .8	0 .0	0 .0	0 .0	3 2.3	130 97.7	133 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	6.0	7.1	.0	57.7	29.1	102
06009	.0	6.1	7.1	.0	47.5	39.4	99
12015	.0	1.9	7.5	.6	56.0	34.0	159
18021	.0	1.1	4.5	1.1	53.4	39.8	88
TOT PCT	0 .0	21 4.0	36 6.8	2 .4	288 54.5	181 34.3	528 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 FT	<600 FT	<1000 FT	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	3.1	96.9	32
06009	.0	.0	.0	3.7	96.3	27
12015	.0	.0	.0	3.1	96.9	32
18021	.0	.0	.0	.0	100.0	21
TOT PCT	0 .0	0 .0	0 .0	3 2.7	109 97.3	112 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
85/89	.0	.0	.4	.0	1.6	.0	1.2	.0	8	3.2
80/84	.0	.0	1.2	1.6	4.8	21.1	14.7	3.6	118	47.0
75/79	.0	.0	.4	.8	4.0	23.9	15.5	4.8	124	49.4
70/74	.0	.0	.0	.0	.0	.4	.0	.0	1	.4
TOTAL	0	0	5	6	26	114	79	21	251	100.0
PCT	.0	.0	2.0	2.4	10.4	45.4	31.5	8.4		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
85/89	.2	.6	.0	.4	.0	.0	.2	1.0	.0	.8
80/84	3.2	3.1	5.0	5.0	3.9	7.0	10.8	6.0	.0	3.2
75/79	2.4	1.8	5.2	5.4	5.1	10.7	10.2	6.4	.0	2.4
70/74	.0	.0	.0	.0	.4	.0	.0	.0	.0	.0
TOTAL	5.8	5.5	10.2	10.8	9.4	17.6	21.1	13.3	.0	6.4

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	89	88	85	81	77	75	72	80.8	211
06009	89	88	85	82	78	76	76	81.7	108
12015	87	85	82	80	76	75	75	79.7	175
18021	84	82	81	79	75	74	74	78.8	97
TOT	89	87	84	80	76	75	72	80.3	591

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	7.4	11.7	53.2	23.4	4.3	75	94
06009	.0	3.9	21.5	43.1	31.4	.0	75	51
12015	.0	.0	6.5	45.2	36.6	11.8	80	93
18021	.0	5.5	3.5	38.2	34.5	18.2	80	55
TOT	0	12	30	135	91	25	77	293



SEPTEMBER

PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1873-1969

AREA 0022 CAPE TALBOT  
12.95 126.2E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	73	77	81	85	89	TOT	N	WD
	76	80	84	88	92		FOG	FOG
11/15	.0	.0	.3	.0	.0	1	.0	.3
9/10	.0	.0	1.3	.0	.0	5	.0	1.3
7/8	.0	.5	1.6	.3	.0	9	.3	2.2
6	.0	.8	.0	.5	.0	5	.0	1.3
5	.0	.3	.0	.0	.3	2	.3	.3
4	.0	.5	1.9	1.1	.0	13	.5	3.0
3	.0	1.3	3.8	.8	.0	22	.5	5.4
2	.0	4.0	10.5	.0	.0	54	2.4	12.1
1	.5	7.3	12.9	.3	.0	78	1.1	19.9
0	.5	18.1	6.5	.0	.0	93	1.1	24.0
-1	1.1	10.0	1.9	.0	.0	48	.0	12.9
-2	.3	4.9	1.1	.0	.0	23	.0	6.2
-3	.8	1.3	.5	.0	.0	10	.0	2.7
-4	.3	.8	.3	.0	.0	5	.0	1.3
-5	.0	.5	.0	.0	.0	2	.0	.5
-6	.0	.3	.0	.0	.0	1	.0	.3
TOTAL	13	188	158	11	1	371	23	348
PCT	3.5	50.7	42.6	3.0	.3	100.0	6.2	93.8

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	.0	1.6
3-4	.0	.0	2.5	.0	.0	.0	2.5	.0	.0	1.6	.0	.0	.0	1.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	.0	2.5	.0	.0	.0	2.5	.0	1.6	1.6	.0	.0	.0	3.3

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.0	4.9	.0	.0	.0	.0	4.9	.0	.0	.0	.0	.0	.0	.0
1-2	.0	3.3	.0	.0	.0	.0	3.3	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	1.6
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	8.2	.0	.0	.0	.0	8.2	.0	.0	1.6	.0	.0	.0	1.6

PERIOD: (OVER-ALL) 1963-1969

SEPTEMBER

AREA 0022 CAPE TALBOT  
12.95 126.2E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	1.6	.0	.0	.0	.0	1.6	2.0	4.5	.0	.0	.0	.0	6.6	
1-2	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.0	.4	
3-4	.0	.0	1.2	.0	.0	.0	1.2	.0	7.0	2.0	.0	.0	.0	9.0	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.4	.0	.0	.0	.4	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	1.6	1.2	.0	.0	.0	2.9	2.0	11.9	2.5	.0	.0	.0	16.4	

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	1.2	4.9	.0	.0	.0	.0	6.1	1.6	.4	.0	.0	.0	.0	2.0		
1-2	1.6	10.7	1.6	.0	.0	.0	13.9	1.6	13.5	.0	.0	.0	.0	15.2		
3-4	.0	1.2	7.4	.0	.0	.0	8.6	.0	.0	4.9	.0	.0	.0	4.9		
5-6	.0	.0	1.2	.0	.0	.0	1.2	.0	.0	.0	.0	.0	.0	.0		
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	2.9	16.8	10.2	.0	.0	.0	29.9	3.3	13.9	4.9	.0	.0	.0	22.1	86.9	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	19.4	16.1	.0	.0	.0	.0	35.5	
1-2	3.2	29.0	1.6	.0	.0	.0	33.9	
3-4	.0	8.1	21.0	.0	.0	.0	29.0	
5-6	.0	.0	1.6	.0	.0	.0	1.6	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	22.6	53.2	24.2	.0	.0	.0	100.0	62

PERIOD: (OVER-ALL) 1950-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	14.9	37.3	20.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	49	2
6-7	.0	.0	7.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	3
8-9	.0	1.5	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
10-11	.0	.0	3.0	1.5	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3	4
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDFT	10.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7	0
TOTAL	17	26	22	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	67	2
PCT	25.4	38.8	32.8	3.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

OCTOBER

PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1871-1969AREA 0022 CAPE TALROT  
13.25 126.1E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.5	6.5	.0	16.8	.0	70.3
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.4	6.9	.0	15.5	.0	74.1
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.2	.0	10.4	.0	71.4
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	18.2	.0	.0	.0	81.8
S	17.4	.0	.0	.0	.0	.0	.0	10.4	5.2	13.0	2.6	.0	.0	.0	74.0
SW	3.4	.0	.0	.0	.0	.0	.0	3.4	.0	7.9	2.6	.0	2.6	.0	87.0
W	.0	.0	.0	.0	.0	.0	.0	2.0	.0	7.1	3.0	.0	3.3	.0	86.6
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	8.8	2.9	.0	7.4	.0	80.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.7	.0	.0	.0	.0	83.3
TOT PCT	1.9	.0	.0	.0	.0	.0	.0	1.9	.2	7.3	4.3	.0	5.6	.0	82.4
TOT OBS:	466														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							NO SIG WEA
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	
00003	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.5	4.9	.0	8.6	.0	83.3
06009	1.2	.0	.0	.0	.0	.0	.0	1.2	.0	.0	4.7	.0	7.1	.0	87.1
12015	1.3	.0	.0	.0	.0	.0	.0	1.3	.0	11.7	3.9	.0	3.9	.0	80.5
18021	5.0	.0	.0	.0	.0	.0	.0	5.0	.0	13.3	2.2	.0	2.2	.0	82.2
TOT PCT	1.8	.0	.0	.0	.0	.0	.0	1.8	.2	6.9	4.1	.0	5.7	.0	82.9
TOT OBS:	491														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.6	5.7	1.1	.0	.0	.0		8.4	6.5		4.4	8.6	33.1	2.8	9.3	6.2	11.9	4.1
NE	1.7	4.7	.4	.0	.0	.0		6.7	5.8		9.4	9.9	10.5	7.4	7.4	2.3	3.6	1.0
E	1.2	2.4	.5	.0	.0	.0		4.1	5.4		3.9	6.6	9.7	.9	3.0	3.8	2.4	4.1
SE	1.3	1.0	.0	.0	.0	.0		2.3	4.1		2.2	.7	.0	1.9	3.3	4.6	2.4	2.0
S	1.5	3.7	.2	.0	.0	.0		5.4	5.4		10.8	6.6	6.5	4.6	7.2	3.1	2.4	5.1
SW	5.4	16.3	2.6	.0	.0	.0		24.2	6.8		39.9	24.3	4.8	31.5	21.2	20.0	20.8	24.5
W	7.1	22.2	2.3	.0	.0	.0		31.6	6.2		22.8	28.3	21.0	39.8	31.0	40.0	28.6	42.9
NW	3.4	10.0	1.0	.0	.0	.0		14.4	5.8		9.2	15.1	14.5	11.1	18.1	18.5	13.7	14.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	3.0							3.0	.0		3.3	.0	.0	.0	4.4	1.5	14.3	2.0
TOT OBS	130	328	40	0	0	0	498		6.0		90	76	31	54	91	65	42	49
TOT PCT	26.1	65.9	8.0	.0	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	03	06	12	18
N	4.9	3.5	.0	.0	.0		8.4	6.5	6.3	13.8	8.0	7.7	
NE	4.4	2.2	.1	.0	.0		6.7	5.8	9.6	8.5	5.3	2.2	
E	3.4	.6	.1	.0	.0		4.1	5.4	5.1	4.1	3.4	3.3	
SE	1.8	.5	.0	.0	.0		2.3	4.1	1.5	1.2	3.8	2.2	
S	3.8	1.6	.0	.0	.0		5.4	5.4	8.9	5.3	2.6	3.8	
SW	12.9	10.6	.7	.0	.0		24.2	6.8	29.5	21.8	20.7	22.8	
W	18.6	12.9	.1	.0	.0		31.6	6.2	25.3	32.9	34.8	36.3	
NW	9.5	4.8	.0	.0	.0		14.4	5.8	11.9	12.4	18.3	14.0	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	3.0						3.0	.0	1.8	.0	3.2	7.7	
TOT OBS	310	183	5	0	0	498		6.0	156	85	156	91	
TOT PCT	62.2	36.7	1.0	.0	.0		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1890-1949  
(COVER-ALL) 1871-1949

OCTOBER

AREA 0022 CAPE TALBOT  
13.25 126.1E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	1-3	4-10	WIND SPEED (KNOTS)				4R+	MEAN	PCT FREQ	TOTAL OBS
				11-21	22-33	34-47					
00003	1.8	29.5	62.7	6.0	.0	.0	.0	.0	5.4	100.0	166
06009	.0	21.2	65.9	12.9	.0	.0	.0	.0	6.8	100.0	85
12015	3.2	19.2	68.6	9.0	.0	.0	.0	.0	6.3	100.0	156
18021	7.7	19.8	67.0	5.5	.0	.0	.0	.0	5.5	100.0	91
TOT	15	119	328	40	0	0	0	0	6.0		498
PCT	3.0	23.1	65.9	8.0	.0	.0	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	9.9	1.2	.0	.0		.4
NE	5.7	1.2	.0	.0		1.7
E	.0	.0	2.4	1.2		6.0
SE	1.2	.0	.0	.0		.0
S	.0	.0	2.1	.0		4.4
SW	22.0	3.3	.0	.0		.9
W	22.0	2.7	.9	.0		1.0
NW	11.4	.0	1.2	.0		1.2
VAR	.0	.0	.0	.0		.0
CALM	8.4	1.2	.0	.0		1.1
TOT OBS	88	8	0	1	83	1.3
TOT PCT	81.9	9.6	7.2	1.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT/NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	400	1000	2000	3500	5000	6500	8000+	NH <5/8 ANY HGT	TOTAL OBS
	149	299	599	999	1999	3499	4999	6499	7999			
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.1	
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.9	
E	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	1.2	1.6
SE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.2
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2.7
SW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.9	
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	25.6	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	12.7	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.6	
TOT OBS	0	0	0	0	1	0	0	0	0	0	1	83
TOT PCT	.0	.0	.0	.0	1.2	.0	.0	.0	.0	.0	97.6	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>OR >4500	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
>OR >4000	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
>OR >3500	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
>OR >3000	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2
>OR >2500	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
>OR >2000	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
>OR >1500	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
>OR >1000	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
>OR >500	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
>OR >0	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.4
TOTAL	2	2	2	2	2	2	2	2

TOTAL NUMBER OF OBS: 83

PCT FREQ NH <5/8: 97.6

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	41.5	29.2	17.0	8.5	1.9	.9	.9	.0	.0	.0	106

PERIOD: (PRIMARY) 1890-1949  
(OVER-ALL) 1871-1969

# OCTOBER

AREA 0022 CAPE TAIROT  
13.25 126.1E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.5	.4	.0	.2	.0	.6	1.0	.4	.0	.0	.0	3.2
	TOT %	.5	.4	.0	.2	.0	.6	1.0	.4	.0	.0	.0	3.2
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	1.2	.5	.4	.0	.2	1.2	1.6	1.5	.0	.0	.2	6.9
	TOT %	1.2	.5	.4	.0	.2	1.2	1.6	1.5	.0	.0	.2	6.9
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.0	.2
5<10	PCP	.0	.0	.0	.0	.4	.9	.6	.0	.0	.0	.0	1.9
	NO PCP	3.6	3.3	2.4	1.3	2.1	16.4	23.6	9.2	.0	.4	.4	62.4
	TOT %	3.6	3.3	2.4	1.3	2.6	17.3	24.2	9.2	.0	.4	.4	64.4
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	3.0	2.0	1.3	.6	1.3	6.1	5.6	3.4	.0	1.9	.25.3	
	TOT %	3.0	2.0	1.3	.6	1.3	6.1	5.6	3.4	.0	1.9	.25.3	
TOT OBS													466
TOT PCT		8.3	6.2	4.1	2.4	4.1	25.2	32.5	14.6	.0	2.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSRY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.2	.0	.0	.2	.0	.1	.5	.2	.0	.0	1.3	
	4-10	.1	.2	.0	.0	.0	.5	.3	.1	.0	.0	1.3	
	11-21	.2	.2	.0	.0	.0	.0	.1	.1	.0	.0	.6	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.5	.4	.0	.2	.0	.6	1.0	.4	.0	.0	3.2	
1<2	0-3	.3	.2	.2	.0	.0	.0	.2	.3	.0	.2	1.5	
	4-10	.9	.5	.0	.0	.0	.9	1.1	1.2	.0	.0	4.5	
	11-21	.0	.0	.2	.0	.2	.3	.3	.0	.0	.0	1.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	1.2	.7	.4	.0	.2	1.2	1.6	1.5	.0	.2	7.1	
2<5	0-3	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.2	.0	.0	.0	.0	.0	.0	.2	
5<10	0-3	.1	.6	.6	.3	.7	3.2	5.5	1.4	.0	.4	12.8	
	4-10	2.8	2.5	1.5	1.0	1.8	12.5	17.5	7.2	.0	.0	46.7	
	11-21	.7	.2	.3	.0	.0	1.5	1.3	.6	.0	.0	4.7	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	3.6	3.3	2.4	1.3	2.6	17.2	24.2	9.2	.0	.4	64.2	
10+	0-3	.9	.7	.4	.5	.4	2.3	.5	1.1	.0	1.9	8.8	
	4-10	1.9	1.2	.9	.1	.9	2.9	4.4	2.1	.0	.0	14.3	
	11-21	.2	.0	.0	.0	.0	.9	.7	.3	.0	.0	2.1	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	2.9	2.0	1.3	.6	1.3	6.1	5.6	3.4	.0	1.9	25.3	
TOT OBS													467
TOT PCT		8.3	6.4	4.1	2.4	4.1	25.2	32.4	14.6	.0	2.6	100.0	



OCTOBER

PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1871-1969AREA 0022 CAPE TALBOT  
13.25 126.1F

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	500 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	3.7	.0	.0	.0	.0	.0	3.7	96.3	27
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	4.5	4.5	95.5	22
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	30
18021	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	27
TOT	0	0	0	0	1	0	0	0	0	1	2	104	106
PCT	.0	.0	.0	.0	.9	.0	.0	.0	.0	.9	1.9	98.1	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	3.7	9.3	.0	67.3	19.8	102
06009	.0	4.7	4.7	.0	64.7	25.9	85
12015	.0	2.6	7.7	.6	67.1	21.9	155
18021	.0	1.1	4.4	.0	58.9	35.6	90
TOT	0	15	35	1	321	120	492
PCT	.0	3.0	7.1	.2	65.2	24.4	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <500YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	5.3	94.7	19
06009	.0	.0	.0	6.3	93.8	16
12015	.0	.0	.0	.0	100.0	25
18021	.0	.0	.0	.0	100.0	23
TOT	0	0	0	2	81	83
PCT	.0	.0	.0	2.4	97.6	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.0	.4	.0	.0	.0	1	.4
85/89	.0	.0	.0	2.0	3.2	7.1	2.4	.0	37	14.7
80/84	.0	.0	.0	.4	5.2	25.8	32.5	6.3	182	72.2
75/79	.0	.0	.0	.0	.4	3.6	6.7	2.0	32	12.7
TOTAL	0	0	0	6	22	93	105	26	254	100.0
PCT	.0	.0	.0	2.4	8.7	36.9	41.7	10.3		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

N	NE	E	SE	S	SW	W	NW	VAR	CALM
.0	.0	.0	.0	.0	.0	.0	.4	.0	.0
2.9	2.2	2.3	.4	.4	1.4	2.8	2.0	.0	.4
6.2	4.0	4.0	2.6	4.7	16.7	14.4	16.7	.0	3.2
1.2	.2	.6	.6	.8	3.6	3.8	1.6	.0	.4
10.2	6.3	6.8	3.6	5.9	21.6	20.9	20.6	.0	4.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	92	88	86	82	79	78	78	82.2	178
06009	90	89	88	83	80	79	79	83.5	89
12015	89	88	85	81	79	77	77	81.5	163
18021	85	84	84	80	79	76	76	80.5	95
TOT	92	88	86	82	79	77	76	81.9	525

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	6.0	8.4	38.6	42.2	4.8	77	83
06009	.0	6.1	18.4	32.7	36.7	6.1	76	49
12015	.0	.0	6.9	41.4	40.2	11.5	80	87
18021	.0	.0	1.9	25.0	55.8	17.3	84	52
TOT	0	8	23	97	117	26	79	271

## OCTOBER

PERIOD: (PRIMARY) 1890-1969  
(OVER-ALL) 1871-1969

AREA 0022 CAPE TAIROT  
13.25 126.1E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	89 92	TOT	N FOG	NO FOG
7/8	.0	.0	.3	.8	4	.0	1.1
6	.0	.3	.5	.5	5	.3	1.1
5	.0	.5	.8	.3	6	.0	1.6
4	.0	.5	1.4	.0	7	.0	1.9
3	.0	3.0	1.4	.0	16	.3	4.1
2	.8	4.9	1.6	.0	27	.5	6.9
1	2.5	13.5	1.4	.0	63	1.4	15.9
0	8.5	17.6	2.5	.0	104	1.4	27.2
-1	13.7	7.1	1.4	.0	81	.8	21.4
-2	5.8	2.7	.0	.0	31	.3	8.2
-3	1.4	2.7	.0	.0	15	.0	4.1
-4	.5	.0	.0	.0	2	.0	.5
-5	.0	.3	.0	.0	1	.0	.3
-6	.3	.0	.0	.0	1	.0	.3
-7/-8	.3	.0	.0	.0	1	.0	.3
TOTAL	123		41		364	18	346
PCT		194		6	100.0	4.9	95.1

PERIOD: (OVER-ALL) 1963-1969

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
C1	1.7	3.0	.0	.0	.0	.0	4.7	1.7	.4	.0	.0	.0	.0	2.2
1-2	.0	1.3	1.7	.0	.0	.0	3.0	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.7	4.3	1.7	.0	.0	.0	7.8	1.7	.4	.0	.0	.0	.0	2.2

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
C1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1-2	.0	5.2	.0	.0	.0	.0	5.2	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	5.2	.0	.0	.0	.0	5.2	.0	.0	.0	.0	.0	.0	.0

PERIOD: (OVER-ALL) 1963-1969

OCTOBER

AREA 0022 CAPE TALBOT  
13.25 126.1E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	1.7	.0	.0	.0	.0	1.7	6.0	6.5	.0	.0	.0	.0	12.5	
1-2	.0	.0	.0	.0	.0	.0	.0	2.2	9.9	.0	.0	.0	.0	12.1	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9	.0	.0	.0	3.9	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.7	.0	.0	.0	1.7	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	1.7	.0	.0	.0	.0	1.7	8.2	16.4	5.6	.0	.0	.0	30.2	

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	2.6	8.2	1.3	.0	.0	.0	12.1	.0	.9	.4	.0	.0	.0	1.3		
1-2	1.3	15.5	1.7	.0	.0	.0	18.5	.0	6.0	1.7	.0	.0	.0	7.8		
3-4	.0	1.7	1.3	.0	.0	.0	3.0	.0	1.7	.0	.0	.0	.0	1.7		
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	3.9	25.4	4.3	.0	.0	.0	33.6	.0	8.6	2.2	.0	.0	.0	10.8	91.4	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT DBS
<1	20.7	20.7	1.7	.0	.0	.0	43.1	
1-2	3.4	37.9	5.2	.0	.0	.0	46.6	
3-4	.0	3.4	5.2	.0	.0	.0	8.6	
5-6	.0	.0	1.7	.0	.0	.0	1.7	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	24.1	62.1	13.8	.0	.0	.0	100.0	56

PERIOD: (OVER-ALL) 1965-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	19.0	29.3	10.3	3.4	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	37	2
6-7	.0	1.7	8.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
10-11	.0	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDBT	22.4	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	14	0
TOTAL	24	18	13	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	58	2
PCT	41.4	31.0	22.4	3.4	.0	1.7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

## NOVEMBER

PERIOD: (PRIMARY) 1891-1967  
(OVER-ALL) 1886-1967

AREA 0022 CAPE TALBOT  
12.85 126.5E

TABLE 1

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA					
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG W/ PCPN	FOG W/ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG JUST BLWG SNOW	NO SIG WEA
N	1.2	.0	.0	.0	.0	.0	.0	1.2	.0	11.1	8.6	.0	18.5	.0	61.7
NE	3.1	.0	3.1	.0	.0	.0	.0	6.2	.0	14.0	10.9	.0	8.5	.0	60.5
E	4.8	4.8	.0	.0	.0	.0	.0	9.5	.0	2.4	2.4	.0	3.6	.0	82.1
SE	.0	4.4	.0	.0	.0	.0	.0	4.4	.0	.0	6.7	.0	4.4	.0	84.4
S	.0	1.5	.0	.0	.0	.0	.0	1.5	.0	11.7	5.8	.0	1.5	.0	79.6
SW	.8	4.9	.0	.0	.0	.0	.0	5.7	.0	13.0	2.4	.0	9.3	.0	70.4
W	.5	.5	.0	.0	.0	.0	.0	1.0	.0	10.9	1.9	.0	24.5	.0	62.2
NW	2.0	.0	.0	.0	.0	.0	.0	2.0	.0	8.4	7.4	.0	14.1	.0	70.1
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	13.6	.0	86.4
TOT PCT	1.2	1.5	.2	.0	.0	.0	.0	2.9	.0	9.5	4.9	.0	13.8	.0	69.7
TOT OBS:	412														

TABLE 2

## PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA								
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT OB TIME	PCPN PAST HOUR	THDR LTNG	FOG W/ PCPN	FOG W/ PCPN PAST HR	SMOKE HAZE	SPRAY BLWG BLWG	DUST SNOW	NO SIG WEA
00603	2.3	2.3	.8	.0	.0	.0	.0	5.4	.0	2.3	6.2	.0	12.3	.0	.0	74.6
06009	.0	1.2	.0	.0	.0	.0	.0	1.2	.0	1.2	2.4	.0	12.0	.0	.0	83.1
12015	1.4	.0	.0	.0	.0	.0	.0	1.4	.0	20.9	5.0	.0	15.8	.0	.0	58.3
18021	1.1	2.2	.0	.0	.0	.0	.0	3.3	.0	13.3	4.4	.0	12.2	.0	.0	66.7
TOT PCT TOT OBS:	1.4 442	1.4	.2	.0	.0	.0	.0	2.9	.0	10.2	4.8	.0	13.3	.0	.0	69.5

TABLE 3

## PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+	00				03	06	09	12	15	18	21	
N	2.3	5.7	1.4	.0	.0	.0		9.5	6.5		6.4	10.7	13.0	9.1	11.2	8.3	7.4	10.3
NE	1.5	5.2	1.6	.2	.0	.0		8.5	7.4		3.5	14.3	15.5	6.1	8.7	9.4	3.7	10.3
E	2.2	2.9	.9	.5	.0	.0		6.4	6.5		5.1	10.7	9.0	9.1	3.9	8.3	3.7	5.9
SE	2.3	2.7	.0	.1	.2	.0		5.4	6.5		2.6	9.5	2.5	13.6	4.5	8.3	6.0	.0
S	1.9	5.4	.5	.2	.0	.0		8.0	6.3		14.4	7.7	5.5	9.1	3.4	5.2	10.2	8.8
SW	3.0	9.5	2.0	.0	.0	.0		14.5	6.5		20.8	13.7	11.0	15.2	13.5	14.1	11.1	14.7
W	4.3	16.1	6.4	.0	.0	.0		24.8	7.1		29.2	17.9	17.5	18.2	24.2	27.6	30.6	29.4
NW	1.8	13.3	2.7	.0	.0	.0		17.8	7.2		14.1	13.1	16.0	19.7	22.8	18.8	16.2	20.5
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.1							5.1	.0		3.8	2.4	10.0	.0	7.9	.0	11.1	.0
TOT OBS	105	260	58	4	1	0	428		6.5		78	42	50	33	89	48	54	34
TOT PCT	24.5	60.7	13.6	.9	.2	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)				TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)			
	0-6	7-16	17-27	28-40				00	06	12	18
N	5.3	4.0	.1	.0	.0	9.5	6.5	7.9	11.4	10.2	8.5
NE	5.2	2.7	.6	.0	.0	8.5	7.4	7.3	11.7	8.9	6.3
E	5.0	1.0	.5	.0	.0	6.4	6.5	7.1	9.0	5.5	4.5
SE	3.7	1.3	.1	.0	.2	5.4	6.5	5.0	6.9	5.8	3.7
S	5.0	2.8	.2	.0	.0	8.0	6.3	12.1	6.9	4.0	9.7
SW	8.6	5.9	.0	.0	.0	14.5	6.5	16.3	12.7	13.7	12.5
W	11.0	13.8	.0	.0	.0	24.8	7.1	25.2	17.8	25.4	30.1
NW	8.5	9.1	.2	.0	.0	17.8	7.2	13.8	17.5	21.4	17.9
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.1					5.1	.0	3.3	6.0	5.1	6.8
TOT OBS	246	174	7	0	1	428		120	83	137	88
TOT PCT	57.5	40.7	1.6	.0	.2	100.0		100.0	100.0	100.0	100.0

## NOVEMBER

PERIOD: (PRIMARY) 1891-1967  
(OVER-ALL) 1886-1967AREA 0022 CAPE TALROT  
12.85 126.5E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)						MEAN	PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+			
00003	3.3	25.8	60.8	9.2	.8	.0	.0	5.6	100.0	120
05009	6.0	16.9	59.0	15.7	2.4	.0	.0	7.0	100.0	83
12015	5.1	16.8	59.1	19.0	.0	.0	.0	6.7	100.0	137
18021	6.8	17.0	64.8	9.1	1.1	1.1	.0	7.0	100.0	88
TOT	22	83	260	58	4	1	0	6.5		428
PCT	5.1	19.4	60.7	13.6	.9	.2	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	5.0	1.1	.6	.6		2.2
NE	2.1	1.5	.2	.6		2.4
E	2.3	1.1	.5	.0		2.2
SE	2.8	.0	.8	.0		2.1
S	3.4	2.4	.5	.6		2.6
SW	7.3	4.5	1.5	.0		2.1
W	24.5	4.1	1.1	1.3		1.5
NW	11.7	4.1	.0	1.9		2.1
VAM	.0	.0	.0	.0		.0
CALM	9.7	.0	.6	1.3		1.6
TOT OBS	100	29	9	10	154	1.9
TOT PCT	68.8	18.8	5.8	6.5	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8)  
AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	NH <5/8 ANY HGT	TOTAL OBS
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	7.5
NE	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.7
E	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.9
SE	.0	.0	.0	.0	.0	.2	.0	.0	.0	.0	.0	3.4
S	.0	.0	.0	.0	.0	.5	.0	.0	.0	.0	.0	6.5
SW	.0	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	12.7
W	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	31.0
NW	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	17.0
VAM	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.0	.0	.0	.0	.6	.0	.0	.0	.0	.0	.0	11.0
TOT OBS	0	0	0	1	2	2	0	0	0	0	0	149
TOT PCT	.0	.0	.0	.6	1.3	1.3	.0	.0	.0	.0	.0	96.8

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	# OR >10	# OR >5	# OR >2	# OR >1	# OR >1/2	# OR >1/4	# OR >50YD	# OR >0
# OR >6500	.0	.0	.0	.0	.0	.0	.0	.0
# OR >5000	.0	.0	.0	.0	.0	.0	.0	.0
# OR >3500	.0	.0	.0	.0	.0	.0	.0	.0
# OR >2000	1.3	1.3	1.3	1.3	1.3	1.3	1.3	1.3
# OR >1000	2.6	2.6	2.6	2.6	2.6	2.6	2.6	2.6
# OR >600	2.6	3.2	3.2	3.2	3.2	3.2	3.2	3.2
# OR >300	2.6	3.2	3.2	3.2	3.2	3.2	3.2	3.2
# OR >150	2.6	3.2	3.2	3.2	3.2	3.2	3.2	3.2
# OR >0	2.6	3.2	3.2	3.2	3.2	3.2	3.2	3.2
TOTAL	4	5	5	5	5	5	5	5

TOTAL NUMBER OF OBS: 154

PCT FREQ NH &lt;5/8: 96.8

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

	0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
	36.9	26.2	22.0	8.9	2.4	.6	1.8	.0	1.2	.0	168



## NOVEMBER

PERIOD: (PRIMARY) 1891-1967  
(OVER-ALL) 1886-1967AREA 0022 CAPE TALKOT  
12.85 126.56

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	PCP	.1	.0	.0	.0	.0	.0	.0	.4	.0	.0	.5	
	NO PCP	.6	.2	.0	.4	.7	.6	.2	1.3	.0	.0	4.1	
	TOT %	.7	.2	.0	.4	.7	.6	.2	1.7	.0	.0	4.6	
1<2	PCP	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	1.5	.5	.0	.2	.1	.6	1.7	1.2	.0	.0	5.8	
	TOT %	1.5	.7	.0	.2	.1	.6	1.7	1.2	.0	.0	6.1	
2<5	PCP	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
5<10	PCP	.0	.2	.5	.2	.1	.9	.2	.0	.0	.0	2.2	
	NO PCP	3.8	4.0	2.6	2.4	3.9	6.2	9.2	6.1	.0	.2	38.4	
	TOT %	3.8	4.2	3.0	2.7	4.0	7.1	9.4	6.1	.0	.2	40.6	
10+	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	NO PCP	3.7	2.4	2.1	2.2	3.5	6.8	13.7	8.9	.0	5.1	48.4	
	TOT %	3.7	2.4	2.1	2.2	3.5	6.8	13.7	8.9	.0	5.1	48.4	
TOT OBS													411
TOT PCT		9.7	7.8	5.1	5.5	8.3	15.0	25.1	18.0	.0	5.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
1/2<1	0-3	.4	.2	.0	.0	.1	.4	.0	.1	.0	.0	1.2	
	4-10	.4	.0	.0	.4	.4	.2	.2	1.3	.0	.0	2.9	
	11-21	.0	.0	.0	.0	.2	.0	.0	.2	.0	.0	.5	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.7	.2	.0	.4	.7	.6	.2	1.7	.0	.0	4.6	
1<2	0-3	.1	.2	.0	.0	.0	.0	.7	.4	.0	.0	1.5	
	4-10	.9	.2	.0	.2	.1	.6	.7	.6	.0	.0	3.4	
	11-21	.5	.2	.0	.0	.0	.0	.2	.2	.0	.0	1.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	1.5	.7	.0	.2	.1	.6	1.7	1.2	.0	.0	6.1	
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	11-21	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	TOT %	.0	.2	.0	.0	.0	.0	.0	.0	.0	.0	.2	
5<10	0-3	.7	.4	1.7	1.7	1.3	1.8	2.1	1.2	.0	.2	11.2	
	4-10	2.3	3.1	.9	.7	2.7	4.3	6.6	4.6	.0	.0	25.1	
	11-21	.9	.5	.0	.0	.0	1.0	.7	.4	.0	.0	3.4	
	22+	.0	.2	.5	.2	.0	.0	.0	.0	.0	.0	1.0	
	TOT %	3.8	4.2	3.0	2.7	4.0	7.1	9.4	6.1	.0	.2	40.6	
10+	0-3	1.2	.5	.4	.7	.5	1.0	1.7	.2	.0	5.1	11.4	
	4-10	2.4	1.2	.7	1.4	2.4	4.7	8.5	6.8	.0	.0	28.2	
	11-21	.1	.7	.9	.6	.3	1.0	3.5	1.9	.0	.0	8.5	
	22+	.0	.0	.0	.1	.2	.0	.0	.0	.0	.0	.2	
	TOT %	3.7	2.4	2.1	2.2	3.5	6.8	13.7	8.9	.0	5.1	48.4	
TOT OBS													411
TOT PCT		9.7	7.8	5.1	5.5	8.3	15.0	25.1	18.0	.0	5.4	100.0	

NOVEMBER

PERIOD: (PRIMARY) 1891-1967  
(OVER-ALL) 1886-1967

AREA 0072 CAPE TALROT  
12.85 126.5E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	000	150	300	600	1000	2000	3500	5000	6500	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	38
06009	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	41
12015	.0	.0	.0	2.2	.0	2.2	.0	.0	.0	.0	4.3	95.7	46
18021	.0	.0	.0	.0	4.8	2.4	.0	.0	.0	.0	7.1	92.9	42
TOT	0	0	0	1	2	2	0	0	0	0	5	162	167
PCT	.0	.0	.0	.6	1.2	1.2	.0	.0	.0	.0	3.0	97.0	100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	3.4	7.8	.0	43.4	43.4	129
06009	.0	1.2	2.4	.0	41.0	55.4	83
12015	.0	5.8	7.9	.0	47.5	38.8	139
18021	.0	5.6	4.4	1.1	33.3	55.6	90
TOT	0	21	27	1	186	206	441
PCT	.0	4.8	6.1	.2	42.2	46.7	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH >4/8) BY HOUR

HOUR (GMT)	<150 <500	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	.0	100.0	38
06009	.0	.0	.0	.0	100.0	39
12015	.0	.0	2.4	2.4	95.1	41
18021	.0	.0	.0	7.9	92.1	38
TOT	0	0	1	4	149	154
PCT	.0	.0	.6	2.6	96.8	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
90/94	.0	.0	.0	.4	2.2	.4	.0	.0	8	3.0
85/89	.0	.0	.0	.4	5.2	19.0	7.1	.0	85	31.7
80/84	.0	.0	.0	.0	2.6	20.5	33.2	7.5	171	63.8
75/79	.0	.0	.0	.0	.0	.4	.7	.4	4	1.5
TOTAL	0	0	0	2	27	108	110	21	248	100.0
PCT	.0	.0	.0	.7	10.1	40.3	41.0	7.8		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
90	.0	1.1	.0	.4	.6	.2	.4	.4	.0	.0
85	3.5	3.5	2.5	2.9	1.3	3.6	4.9	4.9	.0	2.6
80	6.1	3.4	2.7	2.1	4.1	8.8	19.4	14.0	.0	3.4
75	.0	.0	.4	.1	.5	.2	.4	.0	.0	.0
TOTAL	11.6	7.9	5.6	5.4	6.4	12.8	25.1	19.2	.0	6.0

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	93	91	88	85	81	77	77	84.7	127
06009	94	93	90	85	82	79	79	85.1	79
12015	88	87	85	83	81	80	80	83.5	138
18021	87	86	84	83	80	79	79	82.7	85
TOT	94	91	88	84	81	79	77	84.2	429

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	1.2	12.2	43.1	36.6	4.9	77	82
06009	.0	2.0	23.5	49.0	23.5	2.0	74	51
12015	.0	.0	2.2	38.9	48.9	10.0	81	90
18021	.0	.0	5.0	30.0	50.0	15.0	82	60
TOT	0	2	27	115	116	23	79	283

## NOVEMBER

PERIOD: (PRIMARY) 1891-1967  
(OVER-ALL) 1886-1967

TABLE 17

AREA 0022 CAPE TALHOT  
12.85 126.5E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 80	81 84	85 88	89 92	>92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.0	.3	1	.0	.3
7/8	.0	.0	.3	.3	.0	2	.0	.7
6	.0	.0	.3	.3	.0	2	.0	.7
5	.0	.0	.3	.7	.0	3	.0	1.0
4	.0	.0	1.0	1.3	.0	7	.0	2.3
3	.0	.3	2.0	.3	.0	8	.3	2.3
2	.0	1.3	5.3	.3	.0	21	1.0	6.0
1	.0	3.6	7.3	.0	.0	33	.7	10.3
0	.7	11.6	7.3	.0	.0	59	.3	19.2
-1	.0	16.2	6.0	.0	.0	67	3.0	19.2
-2	1.7	18.9	4.3	.0	.0	69	1.0	21.9
-3	.7	6.0	.3	.0	.0	21	.3	6.6
-4	.7	1.0	.0	.0	.0	5	.0	1.7
-5	.3	.7	.3	.0	.0	4	.0	1.3
TOTAL	12	180	99	10	.3	302	20	282
PCT	4.0	59.6	34.8	3.3	.3	100.0	6.6	93.4

PERIOD: (OVER-ALL) 1963-1967

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	2.6	1.9	.0	.0	.0	.0	3.9	1.1	.2	.0	.0	.0	.0	1.3
1-2	.0	5.5	.0	.0	.0	.0	5.5	.0	2.4	.0	.0	.0	.0	2.4
3-4	.0	.7	.0	.0	.0	.0	.7	.0	.2	.9	.0	.0	.0	1.1
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	2.6	7.5	.0	.0	.0	.0	10.1	1.1	2.9	.9	.0	.0	.0	4.8

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	1.5	.0	.0	.0	.0	2.2	.9	.9	.0	.0	.0	.0	1.8
1-2	.0	.7	.0	.0	.0	.0	.7	.0	.0	.0	.0	.0	.0	.0
3-4	.0	.0	.9	.0	.0	.0	.9	.0	.2	.0	.0	.0	.0	.2
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.7	2.2	.9	.0	.0	.0	3.7	.9	1.1	.0	.0	.0	.0	2.0

PERIOD: (OVER-ALL) 1963-1967

NOVEMBER

AREA 0022 CAPE TALBOT  
12.85 126.5E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	.0	.9	.0	.0	.0	.0	.9	.0	2.0	.0	.0	.0	.0	2.0	
1-2	.0	2.4	.0	.0	.0	.0	2.4	.2	4.2	.0	.0	.0	.0	4.4	
3-4	.0	.7	.7	.0	.0	.0	1.3	.0	2.9	1.1	.0	.0	.0	3.9	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.8	.0	.0	.0	1.8	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	.0	3.9	.7	.0	.0	.0	4.6	.2	9.0	2.9	.0	.0	.0	12.1	

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	2.9	3.9	.0	.0	.0	.0	6.8	.7	2.4	.0	.0	.0	.0	3.1		
1-2	.7	10.3	1.8	.0	.0	.0	12.7	.0	8.8	1.8	.0	.0	.0	10.5		
3-4	.0	8.3	6.8	.0	.0	.0	15.1	.0	2.0	2.9	.0	.0	.0	4.8		
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	3.5	22.6	8.6	.0	.0	.0	34.6	.7	13.2	4.6	.0	.0	.0	18.4	90.4	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	18.4	13.2	.0	.0	.0	.0	31.6	
1-2	.9	34.2	3.5	.0	.0	.0	38.6	
3-4	.0	14.9	13.2	.0	.0	.0	28.1	
5-6	.0	.0	1.8	.0	.0	.0	1.8	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	19.3	62.3	18.4	.0	.0	.0	100.0	114

PERIOD: (OVER-ALL) 1960-1967

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	8.1	35.8	18.7	1.6	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	80	2
6-7	.0	2.4	12.2	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	3
8-9	.0	.0	1.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
10-11	.0	.0	.8	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	4
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDPT	16.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	20	0
TOTAL	30	47	41	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	123	2
PCT	24.4	38.2	33.3	3.3	.8	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	

PERIOD: (PRIMARY) 1916-1972  
(OVER-ALL) 1880-1972

# DECEMBER

AREA 0022 CAPE TALBOT  
12.65 126.48

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

PRECIPITATION TYPE										OTHER WEATHER PHENOMENA						
WIND DIR	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	NO SIG WEA	
N	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.6	.0	96.4	
NE	.0	6.6	.0	.0	.0	.0	.0	6.6	.0	6.6	.0	.0	.0	.0	86.9	
E	.0	6.0	.0	.0	.0	.0	.0	6.0	.0	.0	.0	.0	.0	.0	94.0	
SE	.0	11.1	.0	.0	.0	.0	.0	11.1	.0	.0	11.1	.0	.0	.0	77.8	
S	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	
SW	.0	2.2	.0	.0	.0	.0	.0	2.2	.0	4.9	2.2	.0	.0	.0	90.7	
W	3.1	1.6	.0	.0	.0	.0	.0	4.7	.0	5.5	.0	.0	1.6	.0	88.2	
NW	.0	.0	.0	.0	.0	.0	.0	.0	.0	9.5	2.9	.0	1.5	.0	86.1	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.0	.0	.0	.0	.0	16.7	.0	.0	.0	.0	83.3	
TOT PCT	.9	2.3	.0	.0	.0	.0	.0	3.2	.0	5.4	1.4	.0	.9	.0	89.1	
TOT OBS:	221															

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THDR LTNG	FGG WD PCPN	FGG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST BLWG SNOW	NO SIG WEA
00003	.0	2.9	.0	.0	.0	.0	.0	2.9	.0	.0	2.9	.0	.0	.0	94.2
06009	.0	6.3	.0	.0	.0	.0	.0	6.3	.0	.0	4.2	.0	.0	.0	89.6
12015	.0	.0	.0	.0	.0	.0	.0	.0	.0	11.8	1.3	.0	2.7	.0	84.2
18021	4.3	.0	.0	.0	.0	.0	.0	4.3	.0	10.9	.0	.0	.0	.0	84.8
TOT PCT	.8	2.1	.0	.0	.0	.0	.0	2.9	.0	5.9	2.1	.0	.8	.0	88.3
TOT OBS:	239														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	.4	4.8	.6	.0	.0	.0		5.8	7.0		2.4	.0	16.1	.0	12.1	5.3	2.4	.0
NE	1.8	4.2	.4	.0	.0	.0		6.4	6.0		2.9	6.5	11.6	4.8	4.5	5.3	12.9	6.3
E	1.8	4.6	.6	.0	.0	.0		7.0	6.0		2.9	19.6	.0	19.0	3.5	13.2	8.9	.0
SE	1.0	3.0	.2	.0	.0	.0		4.3	5.0		3.8	4.3	.9	9.5	5.4	.0	4.0	6.3
S	1.4	2.7	.6	.0	.0	.0		4.8	5.9		6.7	8.7	6.3	7.1	2.7	2.6	.0	6.3
SW	3.7	13.2	3.9	.0	.0	.0		20.7	7.8		22.1	24.3	14.3	23.8	17.4	18.4	20.2	28.1
W	4.1	19.2	6.5	.6	.0	.0		30.4	8.9		37.5	21.7	21.4	31.0	28.1	35.5	26.6	43.8
NW	1.2	10.5	3.5	.6	.0	.0		15.8	9.2		12.0	10.9	25.9	4.8	21.0	19.7	15.3	9.4
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	4.9							4.9	.0		9.6	.0	3.6	.0	5.4	.0	9.7	.0
TOT OBS	50	153	40	3	0	0	246		7.5		52	23	28	21	55	19	31	15
TOT PCT	20.3	62.2	16.3	1.2	.0	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	0-6	WIND SPEED (KNOTS)				41+	TOTAL OBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
		7-16	17-27	28-40	00 03					06 09	12 15	18 21		
N	3.2	2.6	.0	.0	.0		5.8	7.0	1.7	9.2	10.3	1.6		
NE	3.6	2.8	.0	.0	.0		6.4	6.0	4.0	8.7	4.7	10.6		
E	4.8	1.8	.4	.0	.0		7.0	6.0	8.0	8.2	6.0	5.9		
SE	3.7	.6	.0	.0	.0		4.3	5.0	4.0	4.6	4.0	4.8		
S	2.9	1.8	.0	.0	.0		4.8	5.9	7.3	6.6	2.7	2.1		
SW	8.8	10.1	1.8	.0	.0		20.7	7.8	24.0	18.4	17.7	22.9		
W	10.2	16.7	3.6	.0	.0		30.4	8.9	32.7	25.5	30.0	32.4		
NW	5.2	8.2	2.3	.0	.0		15.8	9.2	11.7	16.8	20.7	13.3		
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0		
CALM	4.9						4.9	.0	6.7	2.0	4.0	6.4		
TOT OBS	116	110	20	0	0	246		7.5	75	49	75	47		
TOT PCT	47.2	44.7	8.1	.0	.0		100.0		100.0	100.0	100.0	100.0		



## DECEMBER

PERIOD: (PRIMARY) 1916-1972  
(OVER-ALL) 1880-1972AREA 0022 CAPE TALROT  
12.65 126.4E

TABLE 4

PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

HOUR	CALM	WIND SPEED (KNOTS)							PCT FREQ	TOTAL OBS
		1-3	4-10	11-21	22-33	34-47	48+	MEAN		
0000	6.7	21.3	49.3	21.3	1.3	.0	.0	7.5	100.0	75
0600	2.0	10.2	73.5	12.2	2.0	.0	.0	7.7	100.0	49
1200	4.0	16.0	64.0	16.0	.0	.0	.0	7.3	100.0	75
1800	6.4	10.6	68.1	12.8	2.1	.0	.0	7.5	100.0	47
TOT	12	38	153	40	3	.0	.0	7.5		246
PCT	4.9	15.4	62.2	16.3	1.2	.0	.0	100.0		

TABLE 5

PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS)  
BY WIND DIRECTION

BY WIND DIRECTION						MEAN
WIND DIR	0-2	3-4	5-7	8 & 9	TOTAL DBSCD	CLOUD COVER
N	4.0	4.0	1.7	.9		3.1
NE	2.3	1.4	3.4	.0		3.6
E	2.0	.0	1.1	.0		3.0
SE	.3	.0	.3	.0		4.0
S	.0	.0	3.1	.0		5.2
SW	2.6	9.4	4.0	1.1		4.0
W	6.3	9.7	9.4	4.3		4.4
NW	9.9	6.3	3.1	2.8		3.1
VAR	.0	.0	.0	.0		.0
(CALM)	3.4	2.3	.0	1.1		3.5
TOT DBS	77	29	23	9	88	3.7
TOT PCT	30.7	33.0	26.1	10.2	100.0	

TABLE 6

PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NM >4/8)  
AND OCCURRENCE OF NM <5/8 BY WIND DIRECTION

000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	DBS
.0	.0	.0	.0	.0	.9	.0	.0	.0	.0	9.7	
.0	.0	.0	.0	.0	1.1	.0	.0	.0	.0	6.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	3.1	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.6	
.0	.0	.0	.0	1.1	.0	.0	.0	.0	.0	2.0	
.0	.0	.0	.0	1.1	.3	.0	.0	.0	.0	15.6	
.0	.0	.0	1.1	3.1	2.0	.0	.0	.0	.0	23.3	
.0	.0	.0	.0	1.4	1.4	.0	.0	.0	.0	19.3	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	6.8	
.0	.0	.0	1	6	5	0	0	0	0	76	88
.0	.0	.0	1.1	6.8	5.7	.0	.0	.0	.0	86.4	100.0

TABLE 7

CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE  
OF CEILING HEIGHT (NM >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	.0	.0	.0	.0	.0	.0	.0	.0
>5000	.0	.0	.0	.0	.0	.0	.0	.0
>3500	.0	.0	.0	.0	.0	.0	.0	.0
>2000	5.6	5.6	5.6	5.6	5.6	5.6	5.6	5.6
>1000	12.4	12.4	12.4	12.4	12.4	12.4	12.4	12.4
>600	12.4	13.5	13.5	13.5	13.5	13.5	13.5	13.5
>300	12.4	13.5	13.5	13.5	13.5	13.5	13.5	13.5
>150	12.4	13.5	13.5	13.5	13.5	13.5	13.5	13.5
>0	12.4	13.5	13.5	13.5	13.5	13.5	13.5	13.5
TOTAL	11	12	12	12	12	12	12	12

TOTAL NUMBER OF OBS: 89

PCT FREQ NM &lt;5/8: 86.5

TABLE 7A

PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	DBSCD	TOTAL DBS
10.6	20.2	24.0	18.3	9.6	2.9	4.8	4.8	4.8	.0	104

DECEMBER

PERIOD: (PRIMARY) 1916-1972  
(OVER-ALL) 1880-1972

TABLE 8

AREA 0022 CAPE TALBOT  
12.6S 126.4E

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5	.5
	TOT %	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5	.5
1<2	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.2	.0	.0	.0	.0	.0	.5	.2	.0	.0	.9	.9
	TOT %	.2	.0	.0	.0	.0	.0	.5	.2	.0	.0	.9	.9
2<5	PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	NO PCP	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5<10	PCP	.0	.0	.5	.0	.0	.5	.9	.0	.0	.0	1.8	1.8
	NO PCP	.9	2.7	3.8	2.9	2.7	12.0	14.3	4.1	.0	.5	43.9	43.9
	TOT %	.9	2.7	4.3	2.9	2.7	12.4	15.2	4.1	.0	.5	45.7	45.7
10+	PCP	.0	.5	.0	.5	.0	.0	.5	.0	.0	.0	1.4	1.4
	NO PCP	5.1	3.7	3.3	.7	2.1	8.1	12.8	10.7	.0	5.0	51.6	51.6
	TOT %	5.1	4.2	3.3	1.1	2.1	8.1	13.2	10.7	.0	5.0	52.9	52.9
TOT OBS		221											
TOT PCT		6.2	6.9	7.6	4.1	4.9	20.6	28.8	15.5	.0	5.4	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
1/2<1	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5	.5
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5	.5
1<2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.2	.0	.0	.0	.0	.0	.5	.2	.0	.0	.9	.9
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.2	.0	.0	.0	.0	.0	.5	.2	.0	.0	.9	.9
2<5	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	4-10	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	11-21	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5<10	0-3	.5	1.6	1.6	1.1	1.1	2.9	2.3	.7	.0	.5	12.2	12.2
	4-10	.5	.7	2.3	1.8	.9	8.8	10.4	2.3	.0	.0	27.6	27.6
	11-21	.0	.5	.5	.0	.7	.7	2.5	1.1	.0	.0	5.9	5.9
	22+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
	TOT %	.9	2.7	4.3	2.9	2.7	12.4	15.2	4.1	.0	.5	45.7	45.7
10+	0-3	.0	.5	.5	.0	.5	.9	1.1	.7	.0	5.0	9.0	9.0
	4-10	4.4	3.7	2.8	1.1	1.7	4.3	8.9	7.8	.0	.0	34.8	34.8
	11-21	.7	.0	.0	.0	.0	2.9	3.2	1.8	.0	.0	8.6	8.6
	22+	.0	.0	.0	.0	.0	.0	.0	.5	.0	.0	.5	.5
	TOT %	5.1	4.2	3.3	1.1	2.1	8.1	13.2	10.7	.0	5.0	52.9	52.9
TOT OBS		221											
TOT PCT		6.2	6.9	7.6	4.1	4.9	20.6	28.8	15.5	.0	5.4	100.0	

## DECEMBER

PERIOD: (PRIMARY) 1916-1972  
(OVER-ALL) 1880-1972

AREA 0022 CAPE TALROT  
12.65 126.4E

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH >4/8) AND  
OCCURRENCE OF NH <5/8 BY HOUR

HOUR (GMT)	070 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	5500 7999	8000+	TOTAL	NH <5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	.0	8.0	4.0	.0	.0	.0	.0	12.0	88.0	25
06009	.0	.0	.0	.0	.0	8.7	.0	.0	.0	.0	8.7	91.3	23
12015	.0	.0	.0	.0	7.4	3.7	.0	.0	.0	.0	11.1	88.9	27
18021	.0	.0	.0	4.3	8.7	4.3	.0	.0	.0	.0	17.4	82.6	23
TOT	0	0	0	1	6	5	0	0	0	0	12	86	98
PCT	.0	.0	.0	1.0	6.1	5.1	.0	.0	.0	.0	12.2	87.8	100.0

TABLE 11

PERCENT FREQUENCY VSRY (NM) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.0	.0	.0	.0	55.1	44.9	69
06009	.0	2.1	.0	.0	37.5	60.4	48
12015	.0	.0	2.6	.0	48.7	48.7	76
18021	.0	2.2	.0	.0	41.3	56.5	46
TOT	0	2	2	0	112	123	239
PCT	.0	.8	.8	.0	46.9	51.5	100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSRY (NM) AND/OR  
CEILING HGT (FEET, NH >4/8), BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH <5/8 AND 5+	TOTAL OBS
00003	.0	.0	.0	12.0	88.0	25
06009	.0	.0	.0	8.7	91.3	23
12015	.0	.0	.0	13.0	87.0	23
18021	.0	.0	5.6	16.7	77.8	18
TOT	0	0	1	11	77	89
PCT	.0	.0	1.1	12.4	86.5	100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.5	.5	.5	.0	.0	.0	3	1.6
90/94	.0	.0	.0	.5	1.6	1.6	.0	.0	7	3.8
85/89	.0	.0	.0	.5	4.9	25.4	25.8	.5	106	58.2
80/84	.0	.0	.0	.0	1.1	5.5	28.6	1.1	66	36.3
TOTAL	0	0	1	3	15	61	99	3	182	100.0
PCT	.0	.0	.5	1.6	8.2	33.5	54.4	1.6		

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95	.0	.0	.0	.0	.0	.5	1.1	.0	.0	.0
90	.0	.5	.5	.0	.5	.5	.5	1.1	.0	.0
85	4.7	5.9	4.5	3.3	2.9	9.1	12.9	10.0	.0	4.9
80	2.6	.5	2.5	1.4	.8	7.1	12.0	7.7	.0	1.6
TOT	7.3	7.0	7.6	4.7	4.3	17.3	26.5	18.8	.0	6.6

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	95	94	89	86	82	77	77	85.6	80
06009	97	95	92	87	83	80	80	87.3	52
12015	88	87	87	85	82	76	76	84.4	81
18021	87	86	86	84	82	77	77	83.7	50
TOT	97	92	89	85	82	77	76	85.2	263

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-29	30-39	40-49	50-59	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.0	3.5	8.8	33.3	49.1	5.3	78	57		
06009	.0	7.5	25.0	37.5	30.0	.0	74	40		
12015	.0	.0	4.8	33.9	58.1	3.2	80	62		
18021	.0	.0	.0	34.2	60.5	5.3	52	38		
TOT	0	5	18	68	49	7	78	197		

DECEMBER

PERIOD: (PRIMARY) 1916-1972  
(OVER-ALL) 1880-1972

TABLE 17

AREA 0022 CAPE TALROT  
12.65 126.4E

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	77 30	81 84	85 88	89 92	>92	TOT	W FOG	WD FOG
11/13	.0	.0	.0	.0	.5	1	.0	.5
9/10	.0	.0	.0	.0	.5	1	.0	.5
7/8	.0	.0	.0	.5	.0	1	.0	.5
6	.0	.0	.0	.5	.0	1	.0	.5
5	.0	.0	1.0	.0	.0	2	.0	1.0
4	.0	.5	.5	1.5	.0	5	.0	2.5
3	.0	1.0	3.0	1.0	.0	10	.5	4.5
2	.0	.5	6.1	1.0	.0	15	.5	7.1
1	.0	5.1	11.1	1.5	.0	35	.0	17.7
0	.0	5.1	11.1	.0	.0	32	.5	15.7
-1	.0	9.1	8.6	.0	.0	35	.5	17.2
-2	.5	7.1	6.1	.0	.0	27	.0	13.6
-3	.0	7.1	4.5	.0	.0	23	.0	11.6
-4	.5	1.5	2.0	.0	.0	8	.0	4.0
-5	.5	.0	.0	.0	.0	1	.0	.5
-7/+8	.0	.5	.0	.0	.0	1	.0	.5
TOTAL	3	74	107	12	2	198	4	194
PCT	1.5	37.4	54.0	6.1	1.0	100.0	2.0	98.0

PERIOD: (OVER-ALL) 1963-1972

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	N						PCT	NE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	2.3	.0	.0	.0	.0	2.3	.0	1.6	.0	.0	.0	.0	1.6
1-2	.0	6.6	1.0	.0	.0	.0	7.6	.0	2.6	.0	.0	.0	.0	2.6
3-4	.0	.0	1.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	8.9	2.0	.0	.0	.0	10.9	.0	4.3	.0	.0	.0	.0	4.3

HGT	E						PCT	SE						PCT
	1-3	4-10	11-21	22-33	34-47	48+		1-3	4-10	11-21	22-33	34-47	48+	
<1	.0	1.3	.0	.0	.0	.0	1.3	.0	.0	.0	.0	.0	.0	.0
1-2	.0	2.6	.0	.0	.0	.0	2.6	.0	.0	.0	.0	.0	.0	.3
3-4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.0	3.9	.0	.0	.0	.0	3.9	.0	.3	.0	.0	.0	.0	.3

PERIOD: (OVER-ALL) 1963-1977

DECEMBER

AREA 0022 CAPT TALBOT  
12.65 126.4E

TABLE 18 (CONT)

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	S							SW							PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	1.3	1.3	.0	.0	.0	.0	2.6	1.3	1.3	.0	.0	.0	.0	2.6	
1-2	.0	1.0	.0	.0	.0	.0	1.0	.0	3.0	.0	.0	.0	.0	3.0	
3-4	.0	.0	.0	.0	.0	.0	.0	.0	2.6	5.6	.0	.0	.0	8.2	
5-6	.0	.0	.0	.0	.0	.0	.0	.0	.0	1.6	.0	.0	.0	1.6	
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.3	2.3	.0	.0	.0	.0	3.6	1.3	0.9	7.2	.0	.0	.0	15.5	

HGT	W							NW							PCT	TOTAL PCT
	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT		
<1	1.3	3.3	.0	.0	.0	.0	4.6	.0	4.6	.0	.0	.0	.0	4.6		
1-2	1.3	11.5	.0	.0	.0	.0	12.8	.0	10.5	3.0	.0	.0	.0	13.5		
3-4	.0	3.9	6.9	.0	.0	.0	10.9	.0	.0	2.3	1.3	.0	.0	3.6		
5-6	.0	.0	1.0	.0	.0	.0	1.0	.0	.0	.0	.0	.0	.0	.0		
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0		
TOT PCT	2.6	18.8	7.9	.0	.0	.0	29.3	.0	15.1	5.3	1.3	.0	.0	21.7	89.5	

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	14.5	15.8	.0	.0	.0	.0	30.3	
1-2	1.3	36.2	3.9	.0	.0	.0	43.4	
3-4	.0	6.6	15.8	1.3	.0	.0	23.7	
5-6	.0	.0	2.6	.0	.0	.0	2.6	
7	.0	.0	.0	.0	.0	.0	.0	
8-9	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	15.8	60.5	22.4	1.3	.0	.0	100.0	76

PERIOD: (OVER-ALL) 1965-1977

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	14.3	40.3	22.1	3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	82	2
6-7	.0	.0	2.6	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	2	3
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
12-13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	
INDEX	14.3	1.3	1.3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	15	0
TOTAL	22	32	20	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	77	2
PCT	28.6	41.6	26.0	3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	100.0	



PERIOD: (PRIMARY) 1890-1973  
(OVER-ALL) 1858-1973

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AREA 0022 CAPE TALROT  
13.05 126.4E

TABLE 1

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY WIND DIRECTION

WIND DIR	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	ND SIG WEA
N	1.7	1.3	.5	.0	.0	.0	.0	3.4	.8	3.9	5.0	.0	5.1	.0	81.3
NE	2.5	2.2	.9	.0	.0	.0	.0	5.7	.3	4.3	3.5	.0	5.0	.0	80.8
E	3.5	4.1	.3	.0	.0	.0	.0	8.0	.7	2.4	3.2	.0	3.6	.0	82.3
SE	6.7	4.1	1.9	.0	.0	.0	.0	12.7	.6	3.0	4.7	.0	3.0	.0	78.2
S	2.6	2.4	.0	.0	.0	.0	.0	5.0	.4	4.2	2.4	.0	2.8	.0	85.6
SW	1.7	1.6	.2	.0	.0	.0	.0	3.5	.0	5.5	2.0	.0	2.9	.0	85.9
W	1.9	2.6	.0	.0	.0	.0	.0	4.5	.2	5.8	5.4	.0	4.1	.0	80.5
NW	2.1	2.3	.0	.0	.0	.0	.0	4.4	.1	5.9	3.3	.0	3.1	.0	83.4
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
CALM	.4	.0	.0	.0	.0	.0	.0	.4	.0	3.8	.2	.0	5.7	.0	90.0
TOT PCT	2.2	2.1	.3	.0	.0	.0	.0	4.6	.3	4.6	3.2	.0	4.0	.0	83.7
TOT OBS:	4900														

TABLE 2

PERCENT FREQUENCY OF WEATHER OCCURRENCE BY HOUR

HOUR (GMT)	PRECIPITATION TYPE							OTHER WEATHER PHENOMENA							
	RAIN	RAIN SHWR	DRZL	FRZG PCPN	SNOW	OTHER FRZN PCPN	HAIL	PCPN AT DB TIME	PCPN PAST HOUR	THOR LTNG	FOG WD PCPN	FOG WD PCPN PAST HR	SMOKE HAZE	SPRAY BLWG DUST	ND SIG WEA
00003	2.2	3.0	.4	.0	.0	.0	.0	5.6	.2	1.0	4.2	.0	3.8	.0	85.4
06009	1.2	1.7	.2	.0	.0	.0	.0	3.1	.2	.3	3.2	.0	4.6	.0	88.6
12015	2.2	1.6	.2	.0	.0	.0	.0	4.1	.4	8.1	3.0	.0	4.4	.0	80.5
18021	3.2	2.0	.4	.0	.0	.0	.1	5.8	.3	8.9	3.0	.0	3.1	.0	79.8
TOT PCT	2.2	2.1	.3	.0	.0	.0	*	4.7	.3	4.7	3.4	.0	4.0	.0	83.3
TOT OBS:	5281														

TABLE 3

PERCENTAGE FREQUENCY OF WIND DIRECTION BY SPEED AND BY HOUR

WIND DIR	WIND SPEED (KNOTS)							TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)							
	0-3	4-10	11-21	22-33	34-47	48+					00	03	06	09	12	15	18	21
N	1.7	3.8	1.1	.1	.0	.0		6.7	6.6		3.8	6.2	11.4	8.5	9.3	6.3	4.6	4.1
NE	2.1	6.0	1.8	.1	*	.0		10.0	7.5		6.0	9.8	12.1	13.8	11.5	13.1	7.4	8.8
E	2.4	9.1	4.3	.4	*	.0		16.2	8.2		14.2	20.2	18.2	20.1	15.0	16.8	10.8	15.5
SE	2.3	7.0	3.0	.3	*	.0		12.7	7.8		16.6	16.6	11.4	10.6	9.9	9.7	12.4	12.5
S	2.4	4.6	.7	*	.0	.0		7.7	6.0		13.6	9.7	6.0	5.8	4.0	7.4	6.6	7.8
SW	3.2	7.8	1.7	.2	.0	.0		13.0	6.5		16.8	13.3	8.9	12.0	11.2	10.7	13.7	14.3
W	3.3	10.3	3.9	.3	.0	.0		17.8	6.7		16.9	12.6	13.9	15.9	19.4	21.2	19.4	22.8
NW	2.0	6.2	1.6	.3	.0	.0		10.2	6.5		6.9	8.4	12.0	10.9	13.0	11.5	9.4	10.3
VAR	.0	.0	.0	.0	.0	.0		.0	.0		.0	.0	.0	.0	.0	.0	.0	.0
CALM	5.7							5.7	.0		5.1	3.1	6.1	2.4	6.5	3.3	15.6	2.8
TOT DBS							5208		7.2		939	691	497	450	1065	584	541	441
TOT PCT	25.2	54.7	18.2	1.8	.1	.0		100.0			100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

TABLE 3A

WIND DIR	WIND SPEED (KNOTS)					TOTAL DBS	PCT FREQ	MEAN SPD	HOUR (GMT)				
	0-6	7-16	17-27	28-40	41+				00	06	12	18	21
N	3.8	2.6	.3	*	.0		6.7	6.6	4.8	9.6	8.3	4.3	
NE	5.0	4.3	.7	.1	.0		10.0	7.5	7.5	13.0	11.9	7.9	
E	6.4	8.1	1.6	.1	.0		16.2	8.2	16.7	18.9	15.7	13.5	
SE	6.1	5.3	1.2	.1	*		12.7	7.8	16.6	10.8	9.9	12.7	
S	5.0	2.6	.1	.0	.0		7.7	6.0	11.9	5.8	5.1	7.3	
SW	7.4	4.9	.6	*	.0		13.0	6.5	13.3	11.0	11.1	14.2	
W	6.0	8.7	1.1	*	.0		17.8	6.7	13.2	15.1	20.1	21.2	
NW	5.5	3.8	.8	*	.0		10.2	6.5	7.6	11.4	12.4	9.5	
VAR	.0	.0	.0	.0	.0		.0	.0	.0	.0	.0	.0	
CALM	5.7						5.7	.0	4.4	4.4	5.4	9.6	
TOT DBS						5208		7.2	1630	947	1649	982	
TOT PCT	53.0	40.3	6.4	.3	*		100.0		100.0	100.0	100.0	100.0	

PERIOD: (PRIMARY) 1840-1973  
(OVER-ALL) 1859-1973

# ANNUAL

AREA 0022 CAPE TALBOT  
13.05 126.4E

TABLE 4

## PERCENTAGE FREQUENCY OF WIND SPEED BY HOUR (GMT)

WIND	CALM	1-3	4-10	11-21	22-33	34-47	48+	MEAN	PCT FREQ	TOTAL OBS
07003	4.4	21.0	54.2	17.6	2.3	.0	.0	7.2	100.0	1630
08009	4.4	18.0	54.4	21.3	1.9	.0	.0	7.7	100.0	947
12015	5.4	19.0	56.8	17.7	1.0	.1	.0	7.0	100.0	1649
18021	9.0	18.0	52.4	17.3	2.4	.2	.0	7.1	100.0	982
TOT								7.2		5208
PCT	5.7	19.4	54.7	18.2	1.8	.1	.0		100.0	

TABLE 5

## PCT FREQ OF TOTAL CLOUD AMOUNT (EIGHTHS) BY WIND DIRECTION

WIND DIR	0-2	3-4	5-7	8 & OBSCD	TOTAL OBS	MEAN CLOUD COVER
N	3.4	1.1	1.1	.9		2.4
NE	4.8	1.3	1.4	.7		2.6
E	10.0	1.3	2.2	1.3		2.9
SE	7.9	1.6	1.0	1.0		2.8
S	3.9	1.1	1.0	.5		2.9
SW	7.3	2.6	1.9	.9		2.3
W	9.6	2.8	3.5	2.1		2.1
NW	6.0	1.8	1.3	1.2		2.0
VAR	.0	.0	.0	.0		.0
CALM	8.9	1.1	.9	.6		1.7
TOT OBS					1449	2.4
TOT PCT	61.8	14.7	14.3	9.2	100.0	

TABLE 6

## PERCENTAGE FREQUENCY OF CEILING HEIGHTS (FT, NH >4/8) AND OCCURRENCE OF NH <5/8 BY WIND DIRECTION

	000	150	300	600	1000	2000	3500	5000	6500	8000+	NH <5/8	TOTAL
	149	299	599	999	1999	3499	4999	6499	7999		ANY HGT	OBS
N	.0	.0	.0	.4	.4	.1	.0	.0	.0	.1	5.6	
NE	.0	.0	.0	.3	.5	.2	.1	.0	.0	.0	7.1	
E	.0	.0	.0	.4	.7	.6	.1	.0	.1	.6	12.3	
SE	.0	.0	.0	.2	.7	.3	.1	.0	.1	.2	10.0	
S	.0	.0	.0	.0	.3	.2	.0	.0	.0	.1	5.9	
SW	.0	.0	.0	.0	.5	.4	.1	.0	.1	.1	11.6	
W	.0	.0	.1	.4	1.4	.8	.1	.0	.0	.3	15.0	
NW	.0	.1	.3	.7	.3	.1	.0	.0	.0	.0	9.0	
VAR	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
CALM	.0	.0	.0	.0	.1	.1	.0	.0	.1	.2	10.9	
TOT OBS												1449
TOT PCT	.1	.0	.1	1.9	5.4	2.9	.6	.0	.3	1.5	87.3	100.0

TABLE 7

## CUMULATIVE PCT FREQ OF SIMULTANEOUS OCCURRENCE OF CEILING HEIGHT (NH >4/8) AND VSBY (NM)

CEILING (FEET)	VSBY (NM)							
	>10	>5	>2	>1	>1/2	>1/4	>50YD	>0
>6500	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
>5000	1.7	1.7	1.7	1.7	1.7	1.7	1.7	1.7
>3500	2.2	2.2	2.3	2.3	2.3	2.3	2.3	2.3
>2000	4.8	5.1	5.2	5.2	5.2	5.2	5.2	5.2
>1000	9.1	10.2	10.6	10.6	10.6	10.6	10.6	10.6
>600	10.0	11.8	12.4	12.6	12.6	12.6	12.6	12.6
>300	10.2	11.9	12.6	12.7	12.7	12.7	12.7	12.7
>150	10.2	11.9	12.6	12.7	12.7	12.7	12.7	12.7
>0	10.2	11.9	12.6	12.7	12.7	12.7	12.7	12.7

TOTAL NUMBER OF OBS: 1464

PCT FREQ NH <5/8: 87.3

TABLE 7A

## PERCENTAGE FREQ OF LOW CLOUDS (EIGHTHS)

0	1	2	3	4	5	6	7	8	OBSCD	TOTAL OBS
39.0	21.4	13.1	8.5	5.2	2.8	2.5	2.0	6.3	.1	1607

PERIOD: (PRIMARY) 1890-1973  
(OVER-ALL) 1858-1973

ANNUAL

AREA 0022 CAPE TALBOT  
13.05 126.4E

TABLE 8

PERCENT FREQ OF WIND DIRECTION VS OCCURRENCE OR NON-OCCURRENCE OF  
PRECIPITATION WITH VARYING VALUES OF VISIBILITY

VSBY (NM)		N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	PCP	*	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
	NO PCP	.0	.0	*	*	.0	.0	.0	.0	.0	.0	*	
	TOT %	*	.0	*	*	.0	.0	.0	*	.0	.0	*	.1
1/2<1	PCP	*	.0	*	*	*	*	.0	*	.0	.0	.1	
	NO PCP	.3	.2	.2	.3	.2	.2	.2	.3	.0	.0	2.0	
	TOT %	.3	.2	.2	.3	.2	.2	.2	.4	.0	.0	2.1	
1<2	PCP	.0	.1	*	*	*	*	.0	.0	.0	.0	.2	
	NO PCP	.4	.3	.4	.3	.2	.3	.4	.3	.0	.1	2.7	
	TOT %	.4	.4	.4	.4	.3	.3	.4	.3	.0	.1	2.9	
2<5	PCP	.0	.1	.1	.1	.0	*	*	.1	.0	.0	.4	
	NO PCP	*	*	*	*	.0	*	*	*	.0	*	.2	
	TOT %	*	.1	.1	.1	.0	.1	.1	.2	.0	*	.7	
5<10	PCP	.2	.4	.6	.4	.2	.4	.6	.4	.0	*	3.3	
	NO PCP	2.9	5.3	8.3	7.2	4.0	6.6	8.6	4.3	.0	1.3	48.5	
	TOT %	3.1	5.7	9.0	7.6	4.2	7.0	9.2	4.7	.0	1.3	51.9	
10+	PCP	*	.1	.1	.2	*	*	.1	*	.0	.0	.6	
	NO PCP	2.7	3.3	6.1	4.2	3.0	5.6	7.7	4.9	.0	4.2	41.8	
	TOT %	2.8	3.4	6.2	4.4	3.1	5.6	7.9	4.9	.0	4.2	42.4	
TOT OBS													4899
TOT PCT		6.6	9.9	16.0	12.7	7.7	13.3	17.8	10.5	.0	5.6	100.0	

TABLE 9

PERCENT FREQ OF WIND DIRECTION VS WIND SPEED  
WITH VARYING VALUES OF VISIBILITY

VSBY (NM)	SPD KTS	N	NE	E	SE	S	SW	W	NW	VAR	CALM	PCT	TOTAL OBS
<1/2	0-3	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
	4-10	.0	.0	*	*	.0	.0	.0	.0	.0	.0	*	
	11-21	.0	.0	*	*	.0	.0	.0	.0	.0	.0	*	
	22+	*	.0	.0	.0	.0	.0	.0	*	.0	.0	*	
	TOT %	*	.0	*	*	.0	.0	.0	*	.0	.0	.1	
1/2<1	0-3	.2	.1	.1	.1	.1	.1	.1	.1	.0	.0	1.0	
	4-10	.1	.1	.1	.1	.1	.1	.1	.2	.0	.0	.9	
	11-21	*	*	*	*	*	.0	*	*	.0	.0	.2	
	22+	.0	.0	*	.0	.0	.0	.0	.0	.0	.0	*	
	TOT %	.3	.2	.3	.3	.2	.2	.2	.4	.0	.0	2.1	
1<2	0-3	.1	.1	.1	*	.1	*	.1	.1	.0	.1	.6	
	4-10	.3	.3	.2	.1	.1	.3	.2	.2	.0	.0	1.6	
	11-21	*	.1	.2	.2	*	*	.1	*	.0	.0	.7	
	22+	.0	.0	*	*	.0	.0	.0	.0	.0	.0	.1	
	TOT %	.4	.4	.4	.4	.3	.3	.4	.3	.0	.1	2.9	
2<5	0-3	.0	.0	.0	*	.0	*	*	.0	.0	*	.1	
	4-10	.0	*	*	.0	.0	*	.1	.0	.0	.0	.1	
	11-21	*	.1	.1	.1	.0	*	.0	.1	.0	.0	.4	
	22+	.0	*	.0	.0	.0	*	.0	.1	.0	.0	.2	
	TOT %	*	.2	.1	.1	.0	.1	.1	.2	.0	*	.8	
5<10	0-3	1.0	1.4	1.2	1.6	1.5	2.0	2.2	1.3	.0	1.3	13.5	
	4-10	1.6	3.3	5.4	4.4	2.4	4.0	5.2	2.7	.0	.0	29.0	
	11-21	.5	.9	2.1	1.4	.4	.8	1.6	.6	.0	.0	8.3	
	22+	.1	.1	.3	.1	*	.1	.2	.1	.0	.0	1.0	
	TOT %	3.1	5.7	8.9	7.5	4.2	7.0	9.2	4.7	.0	1.3	51.8	
10+	0-3	.4	.5	1.0	.6	.7	1.0	.8	.5	.0	4.2	9.6	
	4-10	1.8	2.2	3.4	2.3	2.0	3.6	4.8	3.3	.0	.0	23.4	
	11-21	.5	.7	1.7	1.3	.3	.9	2.2	1.0	.0	.0	8.6	
	22+	*	*	.1	.2	*	.1	.1	.1	.0	.0	.7	
	TOT %	2.8	3.4	6.2	4.4	3.1	5.6	7.9	4.9	.0	4.2	42.3	
TOT OBS													4908
TOT PCT		6.6	9.9	16.0	12.7	7.7	13.3	17.8	10.5	.0	5.6	100.0	

PERIOD: (PRIMARY) 1890-1973  
(OVER-ALL) 1858-1973

ANNUAL

AREA 0022 CAPE TALROT  
13.05 126.4F

TABLE 10

PERCENT FREQUENCY OF CEILING HEIGHTS (FEET, NH > 4/8) AND  
OCCURRENCE OF NH < 5/8 BY HOUR

HOUR (GMT)	000 149	150 299	300 599	600 999	1000 1999	2000 3499	3500 4999	5000 6499	6500 7999	8000+	TOTAL	NH < 5/8 ANY HGT	TOTAL OBS
00003	.0	.0	.0	2.7	6.2	3.4	.0	.0	.3	1.1	14.3	85.7	358
06009	.0	.0	.0	1.9	5.5	2.2	.8	.0	.3	1.2	11.9	88.1	357
12015	.0	.0	.2	2.2	4.8	2.5	.0	.0	.0	2.1	11.8	88.2	454
18021	.2	.0	.2	.8	4.5	2.8	.9	.0	.0	1.2	11.2	88.8	405
TOT PCT	.1	.0	.1	1.8	5.2	2.7	.6	.0	.3	1.4	12.1	87.9	1574 100.0

TABLE 11

PERCENT FREQUENCY VSBY (NH) BY HOUR

HOUR (GMT)	<1/2	1/2<1	1<2	2<5	5<10	10+	TOTAL OBS
00003	.1	2.9	3.1	.3	57.9	35.7	1619
06009	.0	2.5	2.6	.8	48.0	46.0	964
12015	.0	1.9	3.8	.9	55.1	38.4	1695
18021	.1	2.0	2.3	.9	46.5	48.2	1011
TOT PCT	.1	2.4	3.1	.7	52.9	40.9	5289 100.0

TABLE 12

CUMULATIVE PCT FREQ OF RANGES OF VSBY (NH) AND/OR  
CEILING HGT (FEET, NH > 4/8) BY HOUR

HOUR (GMT)	<150 <50YD	<600 <1	<1000 <5	1000+ AND 5+	NH < 5/8 AND 5+	TOTAL OBS
00003	.0	.0	3.3	11.4	85.2	335
06009	.0	.0	2.2	10.0	87.8	339
12015	.0	.2	2.9	10.1	87.0	419
18021	.2	.5	2.8	10.0	87.2	371
TOT PCT	.1	.2	2.7	10.2	87.0	1464 100.0

TABLE 13

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY TEMP

TEMP F	0-24	30-39	40-49	50-59	60-69	70-79	80-89	90-100	TOTAL OBS	PCT FREQ
95/99	.0	.0	.1	*	*	.0	.0	.0		.2
90/94	.0	*	*	.7	.5	.3	.1	*		1.4
85/89	*	*	.2	1.0	3.4	10.3	6.7	.4		22.1
80/84	.0	.2	1.2	2.7	5.7	14.0	21.7	3.8		49.3
75/79	.0	.1	1.2	3.4	4.2	7.5	4.5	2.4		23.3
70/74	.0	.0	.3	1.4	.8	.4	.4	.1		3.4
65/69	.0	.0	*	.1	*	*	*	.0		.3
60/64	.0	.0	.0	*	.0	.0	.0	.0		*
TOTAL PCT	*	.4	3.1	9.1	14.7	32.6	33.4	6.8	2872	100.0

TABLE 14

PERCENT FREQUENCY OF WIND DIRECTION BY TEMP

	N	NE	E	SE	S	SW	W	NW	VAR	CALM
95/99	.0	.0	.0	.0	.0	*	.1	.0	.0	*
90/94	.1	.2	.2	.1	.2	.1	.1	.2	.0	.1
85/89	1.9	2.3	2.8	1.7	1.4	2.4	4.8	2.8	.0	2.0
80/84	3.4	3.5	7.9	5.9	3.2	6.4	9.4	6.3	.0	3.5
75/79	1.0	1.3	6.2	5.7	2.1	2.1	2.2	1.4	.0	1.4
70/74	.1	.2	1.0	1.3	.3	.3	.1	*	.0	.2
65/69	.0	.0	.1	.1	.0	.0	*	.0	.0	.0
60/64	.0	.0	.0	.0	.0	.0	*	.0	.0	.0
TOTAL PCT	6.4	7.4	18.2	14.8	7.1	11.3	16.7	10.8	.0	7.2

TABLE 15

MEANS, EXTREMES AND PERCENTILES OF TEMP (DEG F) BY HOUR

HOUR (GMT)	MAX	99%	95%	50%	5%	1%	MIN	MEAN	TOTAL OBS
00003	95	89	87	82	77	74	62	81.3	1732
06009	97	90	88	83	79	76	72	82.7	978
12015	91	85	84	82	78	75	66	80.8	1748
18021	88	84	83	81	77	74	64	79.9	1035
TOT	97	89	86	82	77	74	62	81.1	5493

TABLE 16

PERCENT FREQUENCY OF RELATIVE HUMIDITY BY HOUR

HOUR (GMT)	0-24	30-39	60-69	70-79	80-89	90-100	MEAN	TOTAL OBS
00003	.1	14.0	15.0	32.5	32.4	6.1	74	875
06009	.0	17.5	21.8	34.5	22.9	3.3	71	547
12015	.0	9.0	13.1	33.6	35.8	8.4	76	1030
18021	.0	9.5	10.8	29.7	39.7	10.3	77	848
TOT	1	390	467	1033	993	216	75	3100

PERIOD: (PRIMARY) 1890-1973  
(OVER-ALL) 1858-1973

ANNUAL

AREA 0022 CAPE TALBOT  
13.05 126.4E

TABLE 17

PCT FREQ OF AIR TEMPERATURE (DEG F) AND THE OCCURRENCE OF FOG (WITHOUT PRECIPITATION)  
VS AIR-SEA TEMPERATURE DIFFERENCE (DEG F)

AIR-SEA TMP DIF	65 68	69 72	73 76	77 80	81 84	85 88	89 92	>92	TOT	N FOG	NO FOG
11/13	.0	.0	.0	.1	.1	.1	.0	.1	9	.0	.3
9/10	.0	.0	*	*	.1	*	.3	.1	20	.0	.6
7/6	.0	.0	.1	.2	.4	.4	.3	.0	50	*	1.4
6	.0	.0	*	.3	.2	.5	.3	.0	49	*	1.3
5	.0	*	.1	.2	.3	.7	.2	.0	59	.1	1.5
4	.0	.0	.1	.6	1.0	.8	.4	.0	115	.2	2.8
3	.0	.0	.2	1.1	1.5	1.6	.2	*	188	.4	4.4
2	.0	*	.4	1.8	3.5	2.6	.2	*	338	.7	7.9
1	.0	.1	.7	2.8	7.3	3.4	.2	.0	579	.8	18.7
0	.0	.1	1.1	5.6	9.5	3.6	.0	.0	771	.9	18.4
-1	.0	.1	1.3	4.4	7.5	3.2	.0	.0	629	.5	15.9
-2	*	.3	1.0	3.5	5.5	2.2	*	.0	476	.2	12.4
-3	*	.2	.8	1.8	3.2	1.4	.0	.0	276	.1	7.4
-4	*	.2	.8	.9	1.5	.3	.0	.0	185	*	3.6
-5	.0	.1	.4	.7	1.1	*	.0	.0	84	*	2.3
-6	*	.1	.1	.3	.6	.0	.0	.0	34	.0	1.1
-7/-8	.0	.1	.1	.4	.2	.0	.0	.0	27	.0	.7
-9/-10	*	*	.1	.1	.0	.0	.0	.0	8	.0	.3
-11/-13	*	.0	.0	.1	.0	.0	.0	.0	4	.0	.1
TOTAL									3851		
PCT	.1	1.3	7.3	24.5	43.6	20.8	2.2	.2	100.0	4.0	96.0

PERIOD: (OVER-ALL) 1963-1973

TABLE 18

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.8	1.1	.0	.0	.0	.0	1.9	.6	1.1	.0	.0	.0	.0	1.7
1-2	.1	2.0	.3	.0	.0	.0	2.4	.0	2.1	.4	.0	.0	.0	2.5
3-4	.0	.4	.5	.0	.0	.0	.9	.0	.1	1.0	.0	.0	.0	1.1
5-6	.0	.3	.1	.0	.0	.0	.3	.0	.2	.3	.0	.0	.0	.6
7	.0	.0	.0	.0	.0	.0	.0	.0	.0	*	.1	.0	.0	.1
8-9	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	.9	3.8	.9	.0	.0	.0	5.6	.6	3.6	1.7	.1	.0	.0	6.0

HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.9	1.8	.1	.0	.0	.0	2.7	.7	1.7	.1	.0	.0	.0	2.5
1-2	.0	4.6	.9	.0	.0	.0	5.5	.0	2.5	.4	.0	.0	.0	2.6
3-4	.1	1.1	2.8	.1	.0	.0	4.1	.0	.9	2.2	.1	.0	.0	3.2
5-6	.0	.2	1.9	.2	.0	.0	2.2	.0	.1	.6	.1	.0	.0	.8
7	.0	.0	.5	.2	.0	.0	.7	.0	.0	.8	.2	.0	.0	1.0
8-9	.0	.0	.1	.1	.0	.0	.2	.0	.0	.1	.1	.0	.0	.2
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.1
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	7.6	6.3	.6	.0	.0	15.5	.7	5.2	4.2	.6	.0	.0	10.7



PERIOD: (OVER-ALL) 1963-1973

ANNUAL

TABLE 18 (CONT)

AREA 0022 CAPE TALBOT  
13.05 126.4E

PCT FREQ OF WIND SPEED (KTS) AND DIRECTION VERSUS SEA HEIGHTS (FT)

S								SW						
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT
<1	.7	2.0	.0	.0	.0	.0	2.7	1.0	2.7	.0	.0	.0	.0	3.8
1-2	.2	1.4	.5	.0	.0	.0	2.1	.2	3.6	.1	.0	.0	.0	3.9
3-4	.0	.4	.3	.0	.0	.0	.7	.0	2.1	1.7	.0	.0	.0	3.6
5-6	.0	.1	.2	.0	.0	.0	.3	.0	.1	.6	.0	.0	.0	.7
7	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0
TOT PCT	1.0	3.8	1.2	.0	.0	.0	6.0	1.3	8.9	2.5	.0	.0	.0	12.2

W								NW							TOTAL PCT
HGT	1-3	4-10	11-21	22-33	34-47	48+	PCT	1-3	4-10	11-21	22-33	34-47	48+	PCT	
<1	1.1	3.1	.1	.0	.0	.0	4.4	.5	1.3	.0	.0	.0	.0	1.8	
1-2	.6	7.0	1.1	.0	.0	.0	8.7	.1	4.7	.9	.0	.0	.0	5.8	
3-4	.0	2.3	3.8	.0	.0	.0	6.0	.0	.6	1.7	.1	.0	.0	2.4	
5-6	.0	.2	.6	.0	.0	.0	.7	.0	.0	.1	.3	.0	.0	.4	
7	.0	.1	.1	.0	.0	.0	.2	.0	.0	.0	.1	.0	.0	.1	
8-9	.0	.0	.1	.0	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	
10-11	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
12	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	1.7	12.6	5.7	.0	.0	.0	20.1	.6	6.6	2.8	.5	.0	.0	10.5	86.5

WIND SPEED (KTS) VS SEA HEIGHT (FT)

HGT	0-3	4-10	11-21	22-33	34-47	48+	PCT	TOT OBS
<1	20.3	14.6	.3	.0	.0	.0	35.3	
1-2	1.5	27.6	4.6	.0	.0	.0	33.7	
3-4	.1	7.8	13.9	.3	.0	.0	22.2	
5-6	.0	1.1	4.4	.6	.0	.0	6.0	
7	.0	.1	1.5	.6	.0	.0	2.2	
8-9	.0	.0	.4	.2	.0	.0	.5	
10-11	.0	.0	.0	.1	.0	.0	.1	
12	.0	.0	.0	.0	.0	.0	.0	
13-16	.0	.0	.0	.0	.0	.0	.0	
17-19	.0	.0	.0	.0	.0	.0	.0	
20-22	.0	.0	.0	.0	.0	.0	.0	
23-25	.0	.0	.0	.0	.0	.0	.0	
26-32	.0	.0	.0	.0	.0	.0	.0	
33-40	.0	.0	.0	.0	.0	.0	.0	
41-48	.0	.0	.0	.0	.0	.0	.0	
49-60	.0	.0	.0	.0	.0	.0	.0	
61-70	.0	.0	.0	.0	.0	.0	.0	
71-86	.0	.0	.0	.0	.0	.0	.0	
87+	.0	.0	.0	.0	.0	.0	.0	
TOT PCT	21.9	51.3	25.1	1.7	.0	.0	100.0	1002

PERIOD: (OVER-ALL) 1950-1969

TABLE 19

PERCENT FREQUENCY OF WAVE HEIGHT (FT) VS WAVE PERIOD (SECONDS)

PERIOD (SEC)	<1	1-2	3-4	5-6	7	8-9	10-11	12	13-16	17-19	20-22	23-25	26-32	33-40	41-48	49-60	61-70	71-86	87+	TOTAL	MEAN HGT
<6	12.7	28.4	16.8	4.4	1.0	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	554	2
6-7	.2	1.5	5.8	3.0	2.6	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	149	4
8-9	.1	.3	.9	1.0	.9	.2	.0	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	40	5
10-11	.0	.2	1.1	.4	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	19	4
12-13	.0	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1	3
>13	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	5	
INDFT	15.9	.7	.3	.0	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	170	0
TOTAL PCT	28.9	31.1	25.0	8.9	4.8	1.0	.2	.1	.1	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	1034	2

PERIOD: (PRIMARY) 1890-1973  
(OVER-ALL) 1858-1973

TABLE 20

AREA 0022 CAPE TALKOT  
13.05 126.4E

PERCENT FREQUENCY OF OCCURRENCE OF SEA TEMP (DEG F) BY MONTH

SEA TMP DEG F	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANN	PCT
96+	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
95/96	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
93/94	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
91/92	.0	1.4	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	4	.1
89/90	4.9	4.3	3.9	.0	.0	.0	.0	.0	.0	.0	.0	.0	51	1.2
87/88	17.6	19.3	13.3	17.8	1.1	.2	.0	.0	.2	.0	5.8	18.8	223	5.4
85/86	34.4	15.5	21.7	17.8	10.0	1.2	.6	.0	.9	9.9	47.0	39.5	531	12.8
83/84	24.6	32.9	31.1	32.7	30.1	7.7	1.6	.5	5.9	18.1	33.5	25.4	704	17.0
81/82	17.5	18.8	19.4	23.6	48.9	34.6	10.2	10.3	30.0	44.4	9.1	8.3	1016	24.5
79/80	3.1	4.3	6.1	7.7	6.0	27.5	16.8	27.6	41.9	23.0	.9	1.3	717	17.3
77/78	2.0	1.0	.0	.5	1.1	19.0	23.4	24.2	13.3	4.3	.0	.0	412	9.9
75/76	.0	1.4	4.4	.0	.5	6.2	28.7	20.8	4.3	.3	.0	.0	293	7.0
73/74	.0	.0	.0	.0	.2	2.5	11.6	10.0	2.9	.0	.0	.0	125	3.1
71/72	.0	.0	.0	.0	.0	.7	5.4	3.4	.7	.0	.0	.0	47	1.1
69/70	.0	.0	.0	.0	.0	.5	1.2	2.1	.0	.0	.0	.0	17	.4
67/68	.0	.0	.0	.0	.0	.0	.6	.3	.0	.0	.0	.0	4	.1
65/66	.0	.0	.0	.0	.0	.0	.0	.8	.0	.0	.0	.0	3	.1
63/64	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
61/62	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
59/60	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
57/58	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
55/56	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
53/54	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
51/52	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
49/50	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
47/48	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
45/46	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
43/44	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
41/42	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
39/40	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
37/38	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
35/36	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
33/34	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
31/32	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
29/30	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
27/28	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
<27	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	.0	0	.0
TOTAL	256	207	180	208	438	599	501	380	444	392	319	223	4147	100.0
MEAN	84.7	84.1	83.7	83.8	82.3	79.6	76.8	77.1	79.7	81.5	84.5	85.3	81.9	

TABLE 21

PRESSURE (MB)

AVERAGE BY HOUR (GMT)

MO	0000	0300	0600	0900	1200	1500	1800	2100	MEAN	TOTAL OBS
JAN	1008	1008	1006	1008	1008	1007	1006	1005	1007	858
FEB	1008	1008	1005	1008	1008	1008	1007	1008	1007	841
MAR	1008	1007	1006	1006	1008	1007	1007	1006	1007	246
APR	1012	1010	1009	1008	1011	1010	1010	1009	1010	362
MAY	1013	1011	1010	1010	1012	1012	1012	1011	1012	273
JUN	1014	1013	1012	1011	1013	1013	1013	1012	1013	369
JUL	1015	1013	1013	1011	1015	1013	1014	1012	1014	286
AUG	1015	1013	1012	1012	1014	1014	1013	1013	1013	394
SEP	1014	1013	1011	1011	1013	1012	1011	1011	1012	352
OCT	1013	1011	1010	1009	1011	1011	1010	1010	1011	299
NOV	1012	1010	1009	1008	1010	1010	1010	1009	1010	333
DEC	1008	1007	1006	1008	1007	1006	1006	1008	1007	208
ANN	1012	1010	1009	1009	1011	1010	1010	1009	1011	3657
OBS	676	366	440	243	796	377	498	261		

PERCENTILES

MO	MIN	1%	5%	25%	50%	75%	95%	99%	MAX
JAN	998	999	1003	1008	1007	1009	1011	1011	1012
FEB	1000	1001	1003	1006	1007	1009	1012	1013	1014
MAR	996	998	1001	1006	1008	1009	1012	1014	1015
APR	1005	1005	1006	1009	1010	1012	1013	1016	1017
MAY	1007	1007	1009	1010	1012	1013	1015	1016	1019
JUN	1008	1008	1010	1011	1013	1015	1016	1017	1018
JUL	1009	1008	1010	1012	1014	1015	1017	1019	1020
AUG	1009	1009	1010	1012	1013	1015	1017	1018	1020
SEP	1008	1008	1009	1011	1012	1013	1016	1017	1019
OCT	1005	1006	1007	1010	1011	1012	1014	1015	1016
NOV	1004	1006	1007	1008	1010	1011	1014	1015	1016
DEC	1001	1001	1003	1005	1007	1008	1010	1011	1013

Volume	Area	Name	Approximate Central Location
1	1	Princess Charlotte Bay	14.3°S 146.2°E
	2	Cairns	17.4°S 148.1°E
	3	Cumberland Islands	20.3°S 150.3°E
	4	Rockhampton	23.3°S 152.8°E
	5	Brisbane	26.9°S 154.7°E
	6	Coffs Harbour	30.6°S 154.6°E
	7	Sydney	33.7°S 153.4°E
	8	Cape Howe NE	36.5°S 152.6°E
2	9	Melbourne SE	39.6°S 147.5°E
	10	Tasmania East	43.2°S 149.7°E
	11	Tasmania West	43.3°S 144.1°E
	12	Cape Nelson	39.4°S 141.4°E
	13	Spencer Gulf	35.4°S 137.1°E
	14	Australian Bight SE	36.5°S 132.5°E
	15	Australian Bight SW	35.5°S 127.0°E
	16	Esperance Bay S	35.6°S 121.1°E
3	17	Cape Leeuwin	34.4°S 113.8°E
	18	Perth NW	30.1°S 112.7°E
	19	Shark Bay	25.5°S 111.5°E
	20	Barrow Island	19.1°S 115.9°E
	21	Broome	16.5°S 121.4°E
	22	Cape Talbot	13.0°S 127.0°E